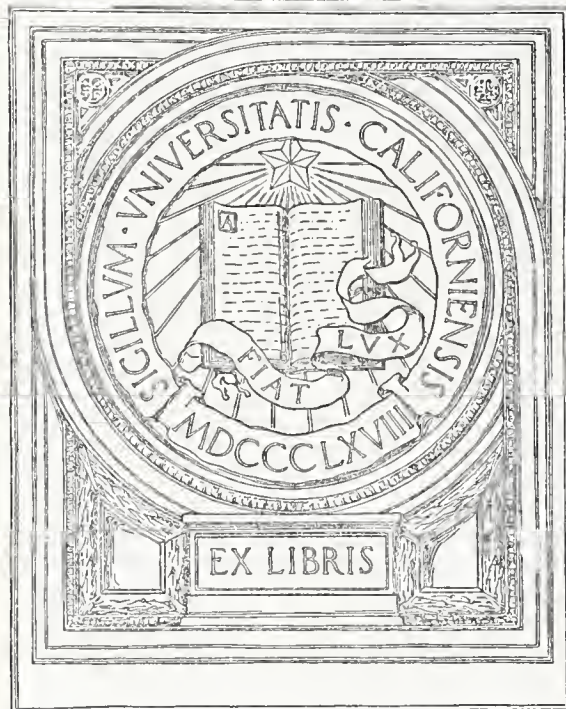




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# *ALASKA MEDICINE*

Official Journal  
of the  
ALASKA STATE MEDICAL ASSOCIATION



Vol. I

1959







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# Alaska Medicine

Vol. 1, No. 1

MARCH, 1959

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### Volume 1, Number 1



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Editorial Office—423 D Street  
Anchorage, Alaska

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# "Alaska Medicine"

## A Report to the Committee

In May 1958, at the last Territorial Medical Association meeting, Fairbanks, Alaska, a committee was appointed to investigate the professional and economic feasibility of publication of an Alaskan Medical Journal.

Since the only adequate demonstration of feasibility appeared to be the actual publication of such a journal, we have used this means as a method of report to the committee. Therefore, to Dr. William Whitehead, Chairman of the Committee and our first State Association President, and to Dr. Hugh Fate, then retiring Territorial Medical Association President, who appointed the committee, and to the members of the Alaska State Medical Association, we submit for review and approval, Vol 1, No. 1 of **Alaska Medicine**, a result of effort and enterprise of the private physicians of Alaska.

To the physicians, to our advertisers, and to all others, through whose time, efforts and financial support this has been made possible, this issue is dedicated.

Many have long felt the need of an Alaskan journal. Through this medium, medical communication in this vast area will expand. Our far flung medical communities, from Ketchikan to Barrow, from the Interior to the Bering Sea and the Westward, will be gathered closer into the growing Alaska medical future.

Alaska medical problems, peculiar in so many ways to our arctic and subarctic ecology, may now be aired, interpreted, reviewed, discussed and we trust, solved by Alaskan physicians.

With this journal, better understanding and rapport may be gained with the Medical Departments of the Armed Forces in Alaska, with the United

States Public Health Service, and with other federal and state agencies. And as a unit, our Association's voice will remind those in our own state government, and our representatives in Washington, that Alaskan physicians intend constant interest in the new State's affairs, particularly those bearing on the field of Health.

**Alaska Medicine**, by its demonstration of need, may hasten ideas to further the birth and growth of vitally needed medical programs in our new State, and continue existing plans for centers of rehabilitation, mental health, and research, and one day, perhaps, encourage the development of Schools of Nursing, or other schools of medical education and post-graduate training, all to provide more inclusive and advanced medical care for Alaskans.

We are given the opportunity now to insure that no longer need the unrecorded medical voice be sent plaintively wailing across the waters of the Inland Passage, to quiver in the Susitna Flats, or be sent rumbling toward the peaks of Mt. McKinley, only to wither and be dissipated in the Wilderness.

Not least of all, through its pages, our younger physicians may be encouraged further to develop medical literary skill, in contributing, from Alaska, to the field of Medical Science, and our elder medical colleagues may be encouraged to lend this new State, with its many young physicians, the leadership and knowledge that only experience and years of practice can provide.

And most important, may our journal provide us with such content, that from its pages we can continue the process of learning, and develop further the process of thinking. We hope by its quality and purpose, that someday, physicians elsewhere, as have navigators for centuries, will look upward, and to the North, to Polaris and to the Forty-ninth Star, and in those latitudes find light.

Respectfully submitted,

**WILLIAM JAMES MILLS, Jr., M.D.**

for Committee, "Alaska Medicine", March, 1959

## "ALASKA MEDICINE", Origin and Future

At first thought it might seem overly ambitious for Alaska with scarcely one hundred practicing physicians to have a state medical journal. Many states with physicians numbering in the thousands do not have a medical publication. Cogent reasons exist, however, for us to have our own journal. There is a pressing need for communication among the handful of physicians in Alaska, the largest state. The extremes of arctic and sub-arctic weather present special medical problems not encountered in the "south 48" states. The responsibilities of newly acquired statehood present organizational issues directly affecting physicians and their patients, issues which would be worthy of discussion in our own medical publication.

Perhaps equally strong arguments could be marshalled to argue that it would be infeasible for Alaskans to have a medical journal. How can such an undertaking be financed? Can one hundred physicians contribute sufficient material of medical interest to justify a regular publication?

The ultimate test of the feasibility of any undertaking is to go ahead and do it. This was the reasoning of Dr. William J. Mills, member of the committee appointed last March, to investigate the possibility of having a journal. In response to his initiative and enthusiasm physicians of Alaska have contributed their time and talents to make ALASKA MEDICINE a reality. Sufficient advertising has been obtained to more than underwrite the cost of publication. Thus, this first issue is being distributed free of charge to all physicians in Alaska and to all medical school libraries and state medical societies in the United States, and a comfortable sum remains for operating capital to support work on subsequent issues. The response from our membership has been similarly gratifying. So many medical articles have been submitted that it has not been possible to publish all in the first issue. Enough material is presently in hand, or promised, to make an ample second issue.

Although the question of adequate financial

and medical support clearly has been answered in the affirmative, many questions remain. First of all, how frequently should **Alaska Medicine** be published? The extremes of once a month to once a year were considered, and it was the present editorial board's opinion that quarterly publications would be most reasonable and realistic. A yearly publication would lose continuity whereas a monthly issue seemed more frequent than necessary to meet our needs.

What should editorial policy be towards the quality and style of material to be published? It was felt that within wide limits approximately half of the material should be of organizational nature whereas the other half should be in the nature of medical reports. Should the editorial board set up a strict requirement for form of the medical reports as is done in most other American medical publications? Should we insist that all medical articles be submitted in the formal style in vogue today with **introduction** followed by **methods, results, discussion**, and then **summary and conclusions**? It was the opinion of the editorial board that policy in this regard should be broad. For example, the interesting, informative and very readable article by Dr. A. N. Wilson regarding the etiology of a Salmonella outbreak in Ketchikan certainly would not benefit by editorial insistence on adherence to form. On the other hand, Dr. Crawford's informative report on chickenpox pneumonia conforms to good advantage to the current style of medical reporting. It could well serve as a model for the majority of future medical reports. Dr. Fritz's enjoyable autobiographical sketch, it is hoped, will serve as a stimulus to other Alaska physicians to tell of their experiences in the practice of medicine. To sum up editorial policy, it is felt that the basic purpose of this journal should be to stimulate and increase communication among physicians in Alaska.

Many suggestions and contributions already have been received for consideration as permanent features of **Alaska Medicine**. An excellent clinical-pathological conference is in hand but has not been



included in the first issue because of space limitations. A CPC of this calibre could well be a regular feature of the journal. A column devoted to news and current activities has been submitted and certainly should be a regular feature. Contributing editors from each of the widely separated medical communities could keep Alaskan physicians up to date with the "goings-on" in their own and other areas. An invited review article by well-known physicians and educators outside of Alaska could well be a regular feature which would add to the educational aspects of the journal. Certainly a section devoted to the history of medicine in Alaska should be one of the important features of each edition. Along this line we could include biographical sketches of physicians now actively

practicing medicine in Alaska. Through this feature newcomers to Alaska medicine could meet their colleagues regardless of the distances separating them.

One important feature which is missing from this first issue is a "Letters to the Editor" column. This is a "must" if the journal is to reflect the ideas and opinions of Alaska physicians. It is hoped that criticism of our new journal, along with constructive suggestion, will be forthcoming from all areas of Alaska. In this way, and in this way only, can each issue show improvement.

It is the hope of the present editorial board that this initial effort has been worthy of your support and acceptance so that future editions will read **"Alaska Medicine, official publication of the Alaska State Medical Society."**

**WILLIAM O. MADDOCK, M.D.**

*Editor, Volume I, Number 1, ALASKA MEDICINE*





# President's Page

**W. M. WHITEHEAD, M.D., President**

ALASKA STATE MEDICAL ASSOCIATION 1958-59

Writing this President's Page puts me in a unique position. When I was first elected President of our Association in 1944, we did not have an official Journal, and it was partially through my efforts that "Northwest Medicine" was selected as our official Journal. Now during my second term as your President, we are considering the possibility of having our own official State Journal. There are many things that we must take into consideration—first would be the advantages, and secondly the disadvantages.

Actually we have come a long way in a period of a few years. When I was elected President in 1944, I elected myself! There were no meetings and the elections were held by mail—voting for whom you wanted as President and Secretary. Dr. Wm. P. Blanton, of Juneau, was the permanent Secretary, as he was reelected each year. That particular year Dr. Noble Dick, formerly of Fairbanks, had one vote and I had one vote, so I told Dr. Blanton I would vote for myself, because I was interested in getting Northwest Medicine as our official Journal. Therefore, I cast the tie-breaking vote for myself.

In 1946 we had our first organized meeting here in Juneau with Dr. A. N. Wilson, of Ketchikan, as our President. A lot of credit for this organized meeting must be given to Dr. C. Earl Albrecht, who was then Commissioner of Health. He was traveling a lot throughout the Territory and was able to contact the physicians, who showed much enthusiasm for the get-together. It was at this meeting that we were able to get the present Basic Science Law passed. Without the airplane travel we would not have been able to become organized.

We have led the way, for this meeting proved to the Dentists and Lawyers that such an organization was worthwhile. It was soon after this that they began having such meetings of their own. Maybe we



will lead the way again and the other professions will have their own Journals.

We are growing up! We have changed from Territorial status to that of a great State. Progress cannot be made by standing still. There are many advantages of a Journal of our own. It will afford us the opportunity of becoming better acquainted with each other. It will give the individual physician a much broader knowledge of what is going on medically within his State. It will encourage each of us to write articles for his Journal. It will give us greater publicity within the world of medicine—provided we do a good job. It will keep us better organized. Of all professions I believe the medical is the most difficult to obtain unanimity of opinions. In a nutshell, it will make us better physicians.

As far as I am able to see, there are only two disadvantages. The first is the enormous amount of work required in getting the Journal out. The second is the cost. A Journal can survive only by the advertisers and subscribers. I feel that we will be able to get our proportion of advertisers. Our subscription rate will probably be low, yet at the same time our membership dues are low. I venture to say that every State in the Union has higher membership dues than we do.

As your President I trust that you will give this matter serious consideration. I would like to extend to Dr. William J. Mills Jr., and his committee of Anchorage, my warmest thanks for their tremendous efforts.

# Commissioner's Report

*HARRY V. GIBSON, M.D.*

COMMISSIONER OF HEALTH—STATE OF ALASKA

Congratulations and success from the Alaska Department of Health to "Alaska Medicine" the new Alaska medical journal. Its birth marks a great forward step in Alaskan medical affairs, and its maturity will enable a development and synthesis of medical opinions among Alaskan members of medical disciplines which is a rarity under such circumstances. Professional education and interagency as well as personal relationships will be greatly improved. A continuity of liaison will help nullify the present disadvantages of long distances and expensive transportation, both of which severely retard statewide meetings and personal contacts.

The Department of Health anticipates and welcomes an opportunity to help establish through this journal a much closer relationship with the practicing physicians of Alaska and in turn to be able to work more effectively in promoting and protecting the health of Alaskan citizens. A professional voice which is authoritative for Alaskan physicians will enable the Department of Health to have a testing area for measuring its success as viewed by the medical world, and thus enable it to take early corrective action on unsatisfactory programs. The new journal will enable the Department to place before all Alaskan physicians reports on statistical findings and upon progress in public health fields which will highlight and bring into focus both preventive medical problems and available or needed public health resources to meet them. This in turn will lead to mutual understanding of problems and answers which will promote harmony and good morale and lead to more and better results. One has only to recall past periods of recrimination and distrust to realize the benefits of closer understanding and agreement between public health and private practice physicians. The ultimate gain is by the public in the form of improved services. The reward of satisfaction over a job well done will be the compensation of both medical and public health personnel.

The recognition of necessity for rapid transmission of information has only served to emphasize the professional problems connected with practicing private or public medicine in Alaska. In such an itinerant area it is difficult indeed to apply modern methods as developed in the more densely populated areas of the "smaller states". We need to keep up our own research to develop methods and techniques suitable to Alaska. Constant exchange of experiences and observations is essential. The publication of a journal designed specifically for this purpose provides an ideal medium for such an exchange. There is no great accomplishment by describing in national journals events which are applicable only to so small a segment of the U. S. population as is to be found in Alaska. Conversely to Alaskans there is limited use for knowledge of the special needs of a U. S. population at large. Hence this journal can readily bring into focus Alaskan problems in a manner impossible to accomplish otherwise.

Alaska has many unique problems, such as the highest known death rate from accidents. We have no good knowledge of the disabled ones who didn't die. Infant mortality presents an age-specific characteristic profile not found elsewhere. Racial and cultural barriers and customs lead to epidemiological patterns found only in Alaska. Need for Alaskan rehabilitative programs is great. A rapid development in mental health programs is imminent. Tuberculosis care has shifted from the sanitarium to the home. Dual sets of problems affecting the urban areas and the rural areas require dual patterns of medical and public health practices—all of this in a growing, shifting population governed by a recently transfigured structure of state government combine to present a special need for up-to-date information for all Alaskan citizens and certainly for the medical and public health fields. Certainly no more farsighted answer has been given to meeting these conditions than is offered through "Alaska Medicine" Such enterprise is gratifying to all personnel who will benefit from it. Salute!



# BOTULISM IN ARCTIC ALASKA: REPORT OF 13 CASES WITH 5 FATALITIES

ERWIN S. RABEAU, M.D.\*

Division of Indian Health, USPHS  
KOTZEBUE

This report concerns the occurrence of botulism in Eskimos in Arctic Alaska. There were five outbreaks in five different years, the last three of which were bacteriologically proved due to *Clostridium botulinum*, Type E. The first two outbreaks were clinically typical but bacteriologically unproved; however, there were three deaths in these two outbreaks. The first outbreak occurred in 1947, involving three persons with two fatalities. The second outbreak in 1948 involved two persons with one fatality. The third outbreak occurred in 1950, involving five persons with no fatalities. The fourth occurred in 1952, involving one person with fatal termination. The fifth outbreak in 1956 involved two persons with one death. The food involved was the same in all thirteen cases—the flippers and skin of the beluga (white whale) preserved in seal oil.



Figure 1. Beached Beluga.

## Case Records

**Case I:** In July 1947, a 55-year-old Eskimo male and his 22-year-old daughter-in-law were admitted to the Kotzebue Alaska Native Hospital because of persistent nausea, vomiting, weakness, and general malaise of four hours duration. Six hours later the 25-year-old son was brought in from a hunting trip with the same complaints. A history was elicited that about 16 hours prior to the onset of symptoms, they had eaten some beluga flipper kept in seal oil.

The beluga, or white whale, *Delphinapterus leucas*, is prepared by cutting the skin with its underlying layer of blubber into chunks (muktuk), drying on a rack for a day or two, then storing it in a barrel of seal oil. It is allowed to age in this fashion for at least four to six weeks.

\* Present Address: Alaska Native Service Hospital Anchorage.

On admission, temperature, pulse and respiration were all normal. There was no diarrhea. All physical findings were normal except pupillary reflexes which were diminished. The nausea and vomiting continued for four to six hours after admission and gradually ceased. Blepharoptosis and diplopia developed. Blurring and dimming of vision were common complaints. Pupils were dilated and fixed, corneal reflexes greatly diminished. About 12 hours after admission, all complained of a dry mouth and sore throat with some difficulty in swallowing. Oral feedings were discontinued and stomach tubes were inserted. There were no bowel movements, little results from enemas, and very few bowel sounds on auscultation, but there was no distention. Peripheral reflexes were diminished but not absent. Weakness persisted and increased with some incoordination of movements. All three patients became progressively worse. Dysphagia became marked (at which point stomach tubes were removed) and intravenous therapy started. Respiratory difficulties became apparent although the lungs were relatively normal on auscultation. As dyspnea increased, oxygen was started. Twenty-four hours after admission the father showed signs of cardiac failure and expired about 34 hours after the onset of symptoms. His death was followed five hours later by that of the girl, whose sensorium remained remarkably clear to the moment of death. As she was almost eight months pregnant, a caesarean section was thought in order if death appeared imminent. The fetal heart rate was 153 on admission and was 120 about four hours prior to death. Due to the sudden demise, however, a section was not done. The 25-year-old male remained in a critical condition with extreme respiratory distress for another 30 hours, then slowly improved. His dyspnea lessened and disappeared but was followed by difficulty in swallowing and phonating. Muscular weakness improved on sixth day of hospitalization—pupillary reflexes started to return on the ninth day. Constipation ended on thirteenth day. Ptosis remained for three weeks, and he complained of diplopia for seven weeks before significant improvement was noticed. It was five months before he felt completely well. No sample of the food was recovered as it was destroyed and the barrel burned by the rest of the family when the three had fallen ill.

**Case II:** In August 1948, a 58-year-old Eskimo male and his 16-year-old son from a fish camp, nine miles away were admitted to Kotzebue with complaints of nausea and vomiting and weakness of seven



hours duration. The father also complained of visual disturbances. He continued to have nausea for 12 hours and severe abdominal pain. The son felt nauseated but had little abdominal distress. History developed that about 12 hours prior to onset of symptoms they had eaten beluga muktuk in seal oil.

The father had eaten three pieces, the boy only one portion. The father's symptoms worsened and he developed marked diplopia and ptosis, dryness of mouth and dysphagia. The son's symptoms were similar but not as severe. They followed a similar pattern of symptoms as noted above in Case I. The father was given 20,000 units of polyvalent A and B antitoxin. As this was all that was available and as the boy had had an acute diffuse upper respiratory infection prior to admission, he was given 600,000 units of penicillin daily. The father's condition deteriorated rapidly, and he expired 54 hours after admission, about 73 hours after the ingestion of the suspected meal. The son's condition remained stable for six days and then started to improve. He was discharged to the outpatient clinic 14 days after admission.

**Case III:** In August 1950, five Eskimos from Point Hope, 165 miles northwest of Kotzebue, ranging from 18 to 62 years in age, came down with symptoms of nausea and vomiting, diplopia and dysphagia. They were admitted 14 hours after the onset of symptoms which commenced about 20 hours after the ingestion of beluga flipper preserved in seal oil. On admission they had diplopia, dysphagia, loss of pupillary reflexes, with dilated fixed pupils, some generalized muscular weakness and constipation. They were treated symptomatically and with large doses of penicillin, responded well to therapy, and released ten days after admission. Some of the food was obtained this time and forwarded to Dr. W. H. Gaub of the Arctic Health Research Center, Anchorage; later Dr. Karl Meyer demonstrated the presence of *Clostridium botulinum* Type E toxin, but no anaerobe. Subsequently Dr. C. E. Dolman at the University of British Columbia isolated a toxigenic strain of *Clostridium botulinum*, Type E, from the sample.

**Case IV:** A 63-year-old Eskimo male was brought in from a fishing camp with a history of nausea, vomiting, generalized weakness, visual disturbances and respiratory distress of 22 to 36 hours' duration. Late admission was due to travel by small boat which was hindered by storms. He had eaten dried whale preserved in seal oil about 16 hours prior to onset of symptoms. His condition progressively worsened and death ensued about 24 hours after admission.

**Case V:** A 41-year-old Eskimo mother and her 8-year-old daughter were admitted with a 20-hour history of malaise, nausea and vomiting about 16 to 18 hours after the ingestion of dried whale fin. Cranial nerve palsies developed rapidly and on the fifth day, respiratory distress increased in both patients. They were placed in respirators. The mother lapsed into coma and expired, but the girl improved and made a gradual, uneventful recovery.

## Discussion

The term "botulism" originated from the Latin word *Botulus*, meaning sausage, coined by physicians in Southern Germany in the beginning of the 19th Century (sausage was prepared by packing raw meat in a casing which became airtight on drying). Van Ermengen, in 1896 (Belgium), discovered the organism. These spores have greater heat resistance than any other anaerobe. It was formerly thought that the toxin was formed outside of the body during growth of the bacteria in a preserved food, but recent studies indicate that botulism may not only be an intoxication but also an infection. Types A, B, and E produce botulism in humans, Type C in ducks, and D in cattle.

## Action of Toxin:

1. Toxin interferes with synthesis of acetylcholine, or with the release of acetylcholine from terminal fibers of motor nerves (one group says toxin strongly inhibits the enzyme which acetylates choline—another group unable to confirm).
2. There is diminution in response to direct stimulation of muscles.
3. In botulism as contrasted to myasthenia gravis: a) motor nerve tetani are well maintained; b) paralysis unaffected by anticholinesterase agents, potassium, or epinephrine.
4. Botulism prevents the release of acetylcholine without affecting reactivity of the end plate to this substance, whereas curare acts by blocking action of acetylcholine at the end plate without decreasing its release from the motor nerve endings.

## Fatality Rates:

United States	477 outbreaks (1281 cases with 829 deaths)
(1899-1949) .....	65%
Canada (1919-1953) ..	56%
	14 known outbreaks (63 cases with 35 deaths)
Germany .....	15%
	(Fatality rate mainly Type B)
France (during occupation) .....	2%
Russia .....	33%
	168 cases with 56 deaths (fishborne type)

## Incidence of Symptoms: (See Chart)

1. Nausea and vomiting: Present in all cases of this series, although most authors describe it only occurring in about one-third of the cases and ascribe it to gastrointestinal irritation due to spoilage of food rather than botulinus toxin.

2. Constipation: Obstinate and characteristic—actually bowel paralysis.

3. Abdominal pain and headache: Probably due to same cause as nausea, as botulism is motor dysfunction rather than sensory.

4. Generalized weakness: Very characteristic.

5. Blepharoptosis: Probably occurs more often—may have been missed due to facial characteristics of Eskimos.

6. Diplopia: Characteristic.

7. Loss of pupillary reflexes: Corneal also. Dilation and fixation of pupils. Nystagmus.

8. Dimness and blurring of vision: Due to oculomotor paralysis.

9. Dysphagia: Characteristic.

10. Dryness of mucosa: Inhibition of salivary secretions, combined with paralysis, gives sensation of sore throat and constricted feeling.

11. Aphonia: Paralysis may cause hoarseness or whispering. None in this series had complete aphonia.

12. Dyspnea: Late symptom and of grave portent.

## Normal Findings:

1. Temperature: Stays normal or subnormal.

2. Pulse: Normal until late stages, then may become rapid or slow.

3. Respiration: Becomes irregular in late stages, occasionally Cheyne-Stokes type.

4. Hematology: RBC, WBC and differential normal at onset.

5. Blood chemistry: Danish observers report slightly reduced serum potassium levels.

6. ECG: Some extra-systoles, flattening and negative T II, depression of ST segment, probably due to action of toxin on myocardium.

7. Cerebrospinal fluid: Normal.

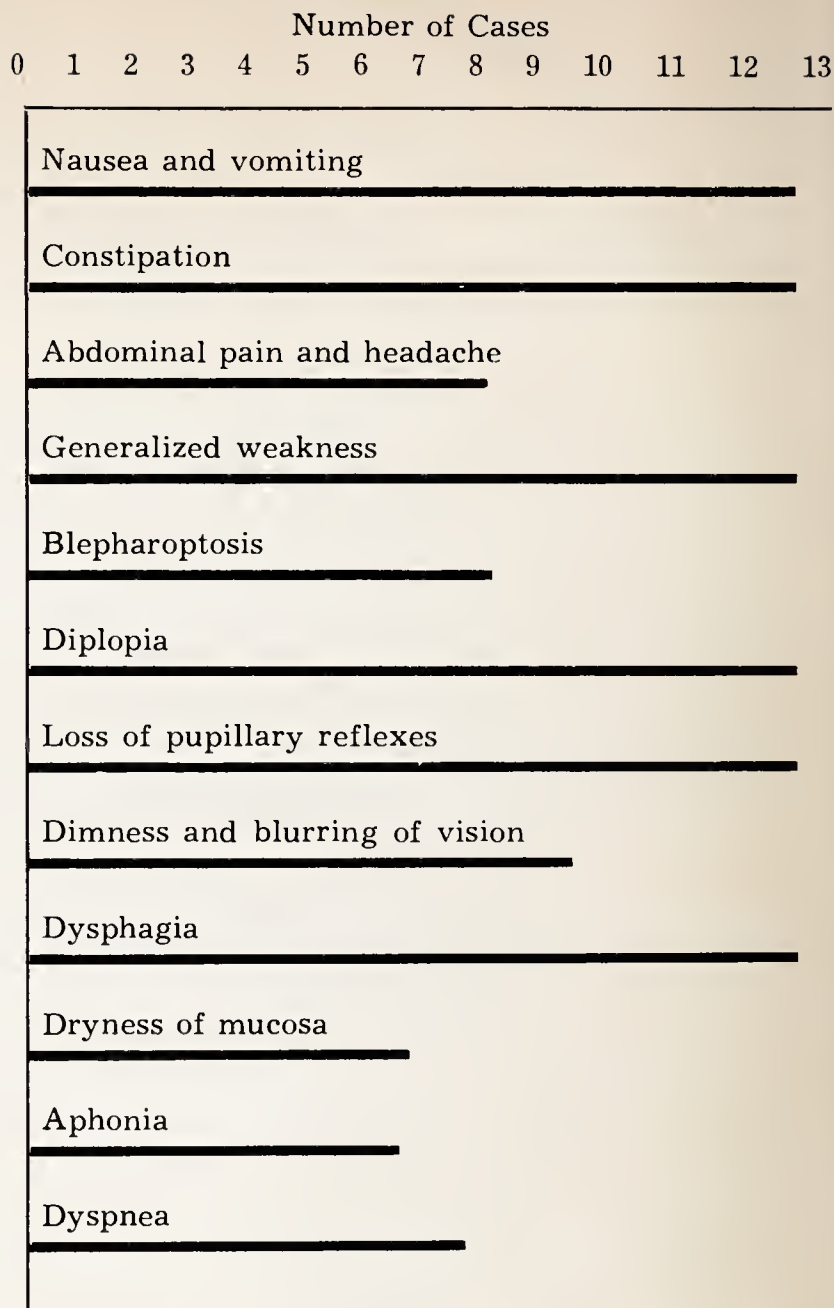
The Type E strain was first isolated in 1935 by Gunnison, Cumming, and Meyer from sturgeon. Through 1952 there have been ten known episodes of proven Type E botulism. Some form of fish or marine mammal was found in all but one.

## Types of marine life in which Type E has been found.

Salmon—Labrador smoked and home-canned British Columbia.

Herring—Pickled British Columbia and Danish,

## INCIDENCE OF SYMPTOMS



smoked Russian, and vinegared Japanese.

Trout—Home-pickled British Columbia.

Beluga

Sprats—German canned.

Russian sturgeon and red fish (no cases have resulted).

French fresh-water perch (no cases have resulted).

Although fish-borne botulism is not necessarily Type E in origin, fish has undoubtedly served as the customary vehicle of Type E botulism. This association seems mainly due to the slight heat resistance of Type E spores, which tends to prevent their survival in even moderately heated foodstuffs. Other possible contributory factors are that Type E toxin is likewise markedly heat-labile and is produced at unusually low temperatures and pH ranges. Also, fish protein may be particularly conducive to toxin production by Type E strains.



## Treatment

1. Type-specific antitoxin: There is one commercial Bivalent one (A and B) available and its greatest use is for prophylaxis. No Type E antitoxin is produced commercially.

2. Stomach tube feeding: Necessary due to glosso-pharyngeal paralysis, but in my experience, must be abandoned early because of dyspnea, apprehension, dry mucosa and regurgitation of fluids.

3. Parenteral fluids: Electrolyte balance must be watched. It is usually necessary to give glucose and amino acids. A Danish report mentions shock, and blood and dextran were used in combating it.

4. Clearing of pharynx and bronchi: Aspiration of the nasopharynx is often necessary as there is usually decreased salivary secretion and sometimes thick, ropy, tenacious mucus in throat; also, regurgitation of fluids through nose and mouth occurs.

5. Tracheotomy: Orton describes case of woman who was nearly drowned in her own secretions because of her inability to expel them and made prompt recovery after tracheotomy.

6. Mechanical respirator: When respiratory paralysis occurs, the use of an iron lung may save the patient. Function may begin to return in 5 to 14 days. Bockus mentions use in several cases without success. Cardiac failure may supervene. The use of a respirator probably saved the girl in the last outbreak. It is my belief that cardiac failure on basis of toxic myocarditis, possibly with vagal paralysis, was the immediate cause of death in these cases.

7. Antibiotics: None of the antibiotics exerts any direct effect against the toxin; however, penicillin and tetracycline are the most effective against the bacteria and in our later cases seemed to be of considerable benefit. The use of ACTH in a case of gangrene with dramatic results has been reported. The authors postulated that its action may have been twofold: an antitoxic and nonspecific insulation on the cells which prevents the toxic actions of bacterial products and restoration of vascular tone. Its use should be investigated in botulism.

## Summary

1. Five outbreaks of botulism in Arctic Alaska are reported. At Kotzebue in 1947, three persons developed clinically typical botulism and two died; and in 1948 there were two cases with one fatality. In 1950 at Point Hope, five cases of nonfatal botulism occurred and the organism was isolated in some of the remaining food. In 1952, near Selawick, one case occurred with death. In Kotzebue in 1956, two cases with one fatality occurred. In both the last two outbreaks, Type E *C1. botulinus* was identified.

2. The same foodstuff, beluga (white whale), uncooked, and preserved in seal oil was responsible for all five outbreaks. In three cases, *C1. botulinus*, Type E, was isolated, and it seems logical to assume that it was probably the factor in the other two.

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# Cardiac Arrest

By **GEORGE E. HALE, M.D.**

ANCHORAGE



Cardiac arrest is a threat to the patients of every practicing physician who uses anesthesia or surgery. A questionnaire which was mailed to every member of the Alaska Medical Society and answered by fifty per cent of those questioned revealed twenty cases. Undoubtedly others have been observed by doctors not reporting. A nationwide survey revealed that arrest occurs once in every 1500 operations excluding thoracic surgery (1). This incidence is sufficiently high to make it mandatory that every practicing doctor have a definite plan of attack in mind in case he is unfortunate enough to encounter this condition. The fact that not more than three to four minutes can elapse between the time the heart is arrested until there is permanent brain damage makes it impossible to successfully treat cardiac arrest without definite previous planning. Even slight delay makes restoration of the patient impossible. It is well established that prompt treatment can produce a good salvage rate (2).

Avoiding asphyxia is of greatest importance in the prevention of cardiac arrest. It is also important to block vagal reflexes with atropine sulfate 1/100 grain in an average adult. Cautious administration of the anesthetic agent in order to prevent overdosage is the third major factor in prevention.

A definite plan of action for cardiac resuscitation should be rehearsed frequently so that it can be put into immediate use when cardiac arrest occurs. The fundamentals of resuscitation are aeration of the patient's lungs, immediate thoracotomy and cardiac massage. Each is useless without the others (3), (4).

The act of cardiac resuscitation consists of five simple steps:

1. Determination of cessation of heart beat and aeration of the lungs.
2. A bold opening of the chest and massage of the heart.
3. Control of fibrillation of the heart if it is found to be present.
4. Closure of the patient's chest.
5. Postoperative medical care.

Determination of the cessation of heart beat and aeration of the lungs is primarily the responsibility of the anesthetist. It is of the greatest importance that the time of arrest be promptly announced and recorded. If the patient is not already intubated, this should be done and the lungs should then be aerated.

When told that death is impending, the surgeon should palpate any large artery for a pulse or listen quickly to the heart if no large artery is available. Ignoring antisepsis, he must boldly make a long incision in the left fourth, fifth or sixth intercostal space. A survey by Bailey failed to reveal a single reported case of empyema or pericarditis from such an unsterile thoractomy (5). If arterial bleeding occurs, it is proof that the heart is not arrested but is only pulsating feebly and the thoracotomy should be discontinued and the heart resuscitated medically. The surgeon should insert his hand behind the pericardium of the heart and squeeze the heart frequently and forcibly against the sternum. The rate of compression of the heart should be from sixty to eighty times a minute if filling is rapid enough to allow this. The force of compression should be enough to completely empty both ventricles and to give a detectable pulse and a blood pressure over seventy millimeters of mercury systolic, if possible. Then a rib spreader or a self retaining retractor should be inserted to relieve compression of the surgeon's wrist. The pericardium should be opened longitudinally in front of the phrenic nerve and the surgeon should pause momentarily and observe whether the heart is in complete standstill or ventricular fibrillation.

If standstill has occurred, if the lungs have been well aerated and if thoracotomy and massage have been prompt, frequently the heart will have resumed normal contractions by this time. If continued mas-



sage does not produce this effect, three to four c.c.'s of 1:10,000 epinephrine should be injected into the right ventricle and massage should be quickly resumed. Injections may be repeated later if necessary alternating with continued massage; and if the desired result is not obtained, a cardiac pacemaker should be used. In my experience, however, the cardiac pacemaker gives disappointing results and sometimes produces ventricular fibrillation.

If fibrillation is found to be present, massage should be continued until the myocardium is pink and then electrical defibrillation should be attempted. Standard defibrillators are available such as those produced by Beck and Rand or by Morris. Usually a 1/10 second shock or series of shocks is given using 110 volt, 60 cycle current with 5-10 amperes. In an emergency any city electrical current will do which is 60-cycle alternating current, and 110 volt. The Pilling Company manufactures electrodes which are plugged into the city current and have been used to good effect. The cost of these is minimal.

If electrical defibrillation is unsuccessful, massage should be continued and after a few shocks or series of shocks, 3 to 4 c.c.'s of 1% procaine may be injected into the right ventricle followed by continued massage and electrical shocking. Other drugs which on occasion have been helpful intravenously are procaine-amide (Pronestyl,) potassium chloride, and calcium chloride or calcium gluconate. If defibrillation is successful the program for cardiac standstill should be instituted as the next step towards normal heart action.

If regular heart rhythm returns, arterial bleeding will soon be noted from the internal mammary and from the intercostal arteries. This should be controlled. It is important not to close the chest too hurriedly since frequently a second arrest may occur and the patient should be in best possible condition before the heart is left without possibility of immediate direct aid. Before closure, atropine, intravenously 1/100 grain, and intravenous digitalization are advisable.

Postoperative care is primarily medical. If a cardiac pacemaker is available it should be in the patient's room, ready for use.

I would like to stress again that frequently there is no time to call for help in the performance of thoracotomy and massage and it should be done by the doctor nearest the patient. However, after cardiac massage has begun and the patient's lungs are well aerated there is usually time to call for other professional help for defibrillation and closing the chest wall if such assistance is needed. In fact, resuscitation has been successful in cases where defibrillators have been obtained from considerable

distances after arrest has occurred and massage and aeration have begun.

**Case History No. 1:** V. W. was a 44-year-old cook with a long history of hypertension and peripheral vascular disease who developed in addition to congestive heart failure, gangrene of the left leg and the right foot with arterial and venous thrombosis and pulmonary emboli. In spite of extremely poor general condition, a femoral vein ligation and amputation was attempted to prevent further emboli from her gangrenous left leg. Cardiac arrest occurred during the femoral vein ligation while the patient was receiving nitrous oxide, oxygen and local infiltration anesthesia. The patient's heart was massaged within one minute from the time of arrest and within two minutes had resumed its normal forceful contractions. The amputation was then finished and the chest was closed. Although her cerebration was limited to response to painful stimuli, the patient's pulse, respiration and blood pressure remained quite stable until she expired four days later with hyperpyrexia. Cerebral damage was due to poor oxygenation prior to arrest since the heart was in standstill only one minute before massage.

**Case History No. 2:** L. H., a 47-year-old man who was to undergo surgery for resection of a gastric diverticulum, suffered cardiac arrest immediately after beginning of anesthesia and intubation. In two minutes the heart was massaged and after a prolonged period of massage and treatment resumed its normal action. One hour and forty-five minutes later, when the chest wall was almost closed, cardiac arrest again occurred and attempts to stop ventricular fibrillation were unsuccessful. Postmortem examination revealed a massive myocardial infarction.

**Case History No. 3:** E. W. During a right radical mastectomy the patient's blood pressure gradually became unobtainable; following which her peripheral pulses were not palpable. Pulsation of the axillary artery continued and when this stopped no heart beat could be heard. Immediate thoracotomy was done and cardiac massage begun. The heart was in standstill. After 2½ hours of massage and electrical defibrillation, heart rate and blood pressure returned to safe levels and the radical mastectomy was quickly completed. Apparent complete recovery without signs of cerebral damage has occurred.

In summary, cardiac arrest is a significant problem in Alaska as elsewhere. If aeration, thoracotomy and massage are prompt and well-planned, resuscitation may be expected in a high percentage of cases. Every physician should be prepared to treat this emergency. Certainly a very aggressive approach is indicated in this tragic complication since some excellent recoveries occur.



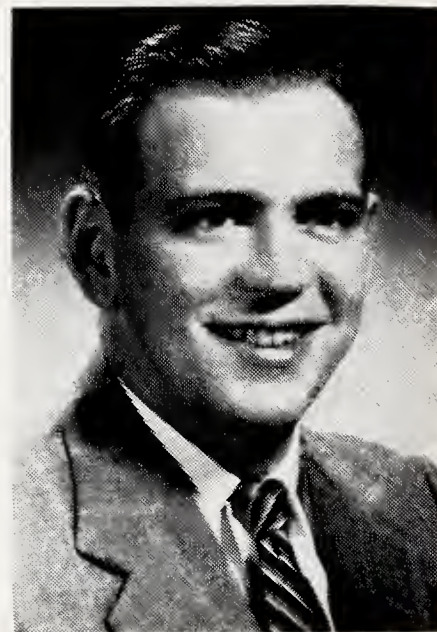
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# CHICKENPOX PNEUMONIA IN A CHILD

**GLENN B. CRAWFORD, M.D.\***

BETHEL



Primary varicella pneumonia can be a fatal manifestation of this usually benign childhood disease. With two exceptions, the fifty-one reported cases have been limited to adults and newborns. Of the two cases occurring in children, the first was a fatal case, unconfirmed by autopsy, in an eight-year-old girl with rheumatic heart disease, and the second was a girl of five years, reported in a roentgenological review of sixteen cases (5) (14). The over-all mortality rate is sixteen per cent (16).

The following case is that of a fifteen-month-old native female who developed fatal chickenpox pneumonia while hospitalized for enteritis. The fulminant character of the common childhood diseases in Alaska natives is frequently impressive. This characteristic, combined with the patient's debilitation from diarrhea, provides the setting for this third reported case of chickenpox pneumonia in the childhood age group.

## CASE REPORT

S.J.K., a fifteen-month-old Eskimo female, was admitted to the Bethel Hospital July 16, 1957. The present illness began one day prior to admission when the father noted fussiness and anorexia associated with four, soft, foamy stools. Two watery stools were passed on the day of admission. At the age of three months she had been hospitalized for bronchopneumonia and ulcerative stomatitis.

\* Present Address: Alaska Native Service Hospital, Anchorage.

On admission the rectal temperature was 100 degrees. The patient was very irritable and showed evidence of recent weight loss and lack of skin turgor. The posterior pharynx and tonsils were injected. The remainder of the examination was normal.

Initial hemoglobin determination was 10.3 grams. White cell count was 3,200: 25% neutrophils, 69% lymphocytes, and 6% monocytes. The spinal fluid and urinalysis were normal. Throat swab on smear showed monilia organisms and on culture grew *E. coli*. X-rays showed dilated, gas-filled small and large bowel. There was no evidence of pulmonary disease.

Shortly after admission, attempts to give fluids orally produced abdominal distention, and frequent watery stools. Treatment with parenteral fluids, antibiotics, and adsorbents produced gradual improvement. By the fourth hospital day, the temperature, which had been intermittently elevated to 100 degrees, remained normal and the patient began to tolerate a regular diet with only occasional abdominal distention.

A few erythematous vesicular lesions were noted on the abdomen July 27, and the patient was placed in chickenpox isolation. On July 31, the tem-



perature suddenly rose to 102 degrees associated with a profusion of hemorrhagic, vesicular-pustular skin lesions, periorbital edema, lethargy, and anorexia.

X-rays obtained August 1, again showed small and large bowel distention. The chest film revealed a coarse nodular infiltrate in the right hilar area. Antibiotics and parenteral fluids were reinstituted. On August 2, the oral mucosa was densely covered with vesicles, all oral medication and fluids were refused and respirations became shallow and rapid. No cough or rales were noted and the respiratory symptoms were felt to be related to the abdominal distention which had again become marked. The following day, eight days after the first chickenpox lesion had been noted, the patient became cyanotic, despite oxygen, and expired.

#### **Autopsy Findings: Gross Examination:**

The skin was covered with elliptical vesicular-pustular umbilicated lesions in all stages of development. Over the abdomen, groin, and buttocks these lesions were frankly hemorrhagic. Similar lesions were noted on the oral mucosa. There was no evidence of pleural or peritoneal lesions and no excess fluid was noted in the body cavities.

Multiple, two to three millimeter, dark red to almost black spots were noted on the surface and on cut sections of the lungs. There appeared to be normal aeration and crepitation. The trachea and bronchi were free of lesions and excess secretions. Grossly, the heart appeared normal.

Examination of the abdominal cavity showed the stomach and small bowel markedly distended with air. The mucosa appeared congested and in the large bowel there were multiple one to two millimeter ulcers with evidence of hemorrhage. The liver and spleen were slightly congested but otherwise appeared normal. There were many five to ten millimeter "rubbery" mesenteric lymph nodes most pronounced in the area of the proximal jejunum. No gross abnormalities were noted in the genito-urinary system.

#### **Microscopic Examination:**

The skin showed epidermolysis and vesicles with reticulated septa. Giant cells were noted and many cells showed pale, pink-staining, intranuclear inclusion bodies, characteristic of varicella. Colonies of staphylococcal-like organisms were noted with large numbers of neutrophils in the dermis and subcutaneous tissue. Areas of hemorrhage were evident.

Many microscopic, pale staining areas with loss of architecture were evident in the lung. Surrounding these areas, eosinophilic intranuclear inclusion

bodies were noted in alveolar lining cells and endothelial cells. Some alveoli showed hemorrhage or congestion. In several areas, the alveoli were thickened and collapsed, while in others the septa were thinned and ruptured. Cellular elements were seen in the bronchi.

Eosinophilic intranuclear inclusion bodies were present in reticulo-endothelial cells and parenchymal cells surrounding areas of necrosis in the liver. Inclusion bodies were also noted in some of the bone marrow cells. Hemopoietic activity was generally diminished.

The remainder of the sections showed changes compatible with enteritis and congestion.

### **DISCUSSION**

The clinical picture of varicella pneumonia can be summarized as follows. Symptoms of pulmonary involvement begin from three to seven days after the onset of the rash, and usually correlate with massive hemorrhagic progression of the cutaneous involvement and a second temperature elevation. The cough is most frequently dry and harsh and productive of small amounts of thick tenacious sputa (3). In about half of the cases hemoptysis is noted (11). Pleuritic pain is a frequent complaint. As the disease progresses, dyspnea and cyanosis become more and more severe. As is frequently the case in viral pneumonias, the clinical symptoms and x-ray findings may be pronounced without rales or rhonchi being heard on physical examination (17). The expiratory phase is usually prolonged. Shock and congestive heart failure have been reported as complications (9, 12).

Leukocytosis is rarely seen, and if present, particularly if associated with a secondary temperature elevation, may indicate bacterial rather than primary varicella pneumonia (1). Urinalysis is normal or may show small amounts of albumin. If hematuria and albuminuria are present, varicella nephritis should be suspected (8).

The x-ray findings are characteristic and consist of widespread nodular densities superimposed on markedly increased bronchovascular markings. The nodules are of various sizes and shapes and are seldom sharply delineated. They tend to be heaviest at the bases and hila, and may be confluent and transitory. As the rash subsides, the nodules usually disappear; however, some interstitial thickening may persist for several weeks (13). Slight pleural effusion is sometimes noted (10, 14, 15).

Pathological changes within the lung consist of multiple foci of necrosis and hemorrhage. There is associated swelling, proliferation, and desquama-

tion of alveolar cells, and infiltration of mononuclear cells. Type A eosinophilic intranuclear inclusion bodies are found in septal cells and macrophages. Involvement of bronchiolar epithelium and pleura may be noted (6). Similar patches of necrosis and hemorrhage with inclusion bodies have been reported in the spleen, liver, adrenal glands, kidneys, and paratracheal lymph nodes (4).

Treatment is supportive, with oxygen for cyanosis and dyspnea, and parenteral fluids as needed to maintain adequate hydration. Antibiotics may be used to prevent secondary bacterial infection. Aureomycin has been reported as beneficial, but it is debatable if there is any direct effect on the virus (2). Corticosteroids were used with rewarding results in at least two cases that appeared to be terminal (16).

Protection by isolation techniques and gamma globulin or convalescent serum is important in debilitated children and previously uninfected adults. With the exception of the neonatal group, no attempt should be made to protect healthy children from chickenpox since morbidity and mortality are increased in adults.

### SUMMARY

Varicella pneumonia may be very fulminant and rapidly fatal. It occurs mostly in the neonatal and adult age groups. A fatal case in a fifteen-month-old child already debilitated by enteritis is presented. The clinical signs and symptoms and the laboratory, x-ray, and pathologic findings are summarized. Treatment is mainly supportive. The protection of already ill children from chickenpox by isolation and gamma globulin is stressed.

*I am indebted to Dr. Clermont Powell and Dr. Michael Beirne for review of the microscopic material.*

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# OBSERVATIONS ON HYPNOSIS IN GENERAL PRACTICE

J. B. DEISHER, M.D.

SEWARD

The purpose of this article is to sketch some personal experiences with the use of hypnosis in general practice in a small community in Alaska. The population of the community is approximately 2100, and the racial background largely white immigrants from the other 48 states with a small admixture of Alaska natives and part-natives. The general education level of the populace is high school graduate. The economy is based upon longshoring and fishing activities.

The writer first became interested in the subject of hypnosis when he came upon a book entitled "Experimental Hypnosis," edited by Leslie M. LeCron (1). Subsequent to this he attended a concentrated three-day session of Seminars on Hypnosis at which a faculty of six members, including a psychiatrist, a gynecologist, a general practitioner, Mr. LeCron who is a clinical psychologist, and two dentists, explained and demonstrated some of the uses, techniques, and limitations of this little understood psychological phenomenon. This led directly into further reading (2, 3, 4, 5) and subscription to journals on hypnosis followed by attempts to utilize it in a general medical practice. The results have been disappointing in some cases, startling in other cases, and very helpful in perhaps the majority. The most important single fact learned at the Seminars was that the writer had been using hypnosis without knowing it prior to attending the course.

The use of hypnosis in medicine is as old as the art itself. Boiled down to its essentials, hypnosis is a state of rather intense concentration with a markedly introspective cast which leads to a condition of increased suggestibility wherein ideas presented from outside the organism seem to arise from within and govern the behavior of the subject. Hypnosis is based upon an intense interpersonal relationship involving imagination, interested expectation, and faith, and is thus more closely related to the emotions than to the intellect. From a psychiatric point of view the boundaries of the conscious ego become less distinct; there seems to be an increased porosity of the wall which separates the conscious from the unconscious. Certain it is that the nature of hypnosis is little understood (6, 7); however, its

utilization for both good and evil has been grasped either scientifically or intuitively by many people throughout the ages of man.

In general practice the physician is under obligation to utilize whatever methods and materials may come to his attention for the alleviation of the distress of his patients, restricted only by the dictum of **primum non nocere**. The techniques grouped under the title of hypnosis are just one such set of tools, handy and readily available to anyone who will learn to recognize and use them. Actually the physician uses suggestion many times every day—and has it used on him probably an equal number of times. The laying on of hands, the complex physical examination, the laboratory with its mysteries, the formidable prescription (written in Latin and other cabalistic symbols), the physical therapeutic modalities—all of these carry in our tribe the same impressive magic which the frequently cartooned mask and rattle of the shaman carry in other tribes. It is impossible for the patient to avoid the suggestion that all this will surely make him well. The ever-present unrecognized factor of therapeutic suggestion necessitated the development of the double-blind experimental study without which the true importance of any new medication or surgical procedure is fair subject for debate. If, then, we recognize that we accidentally are using suggestion to the benefit and/or detriment of our patients daily, would it not be just a little more intelligent to use it consciously, knowingly, and with as great an effect as possible? The use of hypnosis permits us to do exactly this. But it is not a panacea.

**Selection of Patients for Hypnosis:** Not all patients are susceptible to deep hypnosis although it is maintained that 95% or more people are actually hypnotizable provided sufficient effort is directed to this end. Approximately 20% of the general population are good hypnotic subjects who go into a trance with very little effort and who go into a very deep trance quite quickly. It is with these people that it is easiest to work in this particular way. Another 50% or so are easily put into a light hypnotic state and the effect of suggestion even in this light trance state is much more notable than in the fully waking condition. Certainly **hypnotizability** is one important

criterion of selection. How can hypnotizability be estimated? By attempts at waking suggestion or actual attempts at hypnotic induction. These are quite similar both in effect and basic procedure. It is interesting to note that among college students studied for hypnotizability this trait is most often found in intelligent extroverted well-adjusted men and women who are often leaders in their group (8, 9).

Hypnotic induction is **avoided in the psychotic and prepsychotic** if they are identifiable. If there is a danger in hypnosis, it lies in just such cases. The increased porosity mentioned above may permit repressed material from the unconscious to reach consciousness with the development of severe symptoms of a psychiatric nature. Should such a person be inadvertently hypnotized and show signs of severe anxiety, however, the trance may be promptly terminated with the instructions that he will recall nothing and will be as sound in mind and body as he was on entering the room. In hypnosis as in any therapeutic effort the patient must be protected by his physician.

**Cooperation** on the part of the patient is necessary and for this reason the basic desires of the patient must be considered in selecting the subject for hypnosis. Cooperation may be enlisted or enhanced by removal of fears and misunderstandings concerning the hypnotic state and the utilizations thereof, and clarification of the patient-physician relationship. Rapport is the *sine qua non* of hypnosis.

Techniques of formal hypnotic induction are almost as numerous as the practitioners of the art and will not be dealt with in detail here. All of them embody the use of monotonous, more or less rhythmic stimulation combined with properly timed prediction of certain universal or inevitable neuro-physiologic events so that the subject becomes convinced that what the operator predicts will occur. Once such a prediction is established—could one call it faith? or rapport?—suggestibility is enhanced to the degree that as each suggestion is followed the process is intensified. It is my feeling that one should refer not to depth of trance but rather to intensity.

**Present Series:** Leaving theoretical considerations, let us turn to the results in two and one-half years of experience with hypnosis in a general practice. During this period the process has been consciously attempted in 70 patients. It was abandoned as ineffective in 8. It was offered to many others who refused it under the name of hypnosis. Its use probably has alienated a fairly large number who had superstitious fears and with whom little or no rapport had previously been developed.

As shown in the accompanying tables, of the 62, 36 were obstetrical patients. Hypnosis was utilized

in 8 cases of acute injury. Thirty-one instances of use in psychosomatic problems are listed. The total is greater than 62 because hypnotic techniques were used for more than one purpose in some of the patients.

Explanation of the tables is in order. Patients are grouped by age and sex and the levels of hypnosis induced are designated as Relaxed (or Hypnoidal), Light, Medium, and Intense. The clinical results of hypnosis are classified as: Failure, Helpful, Successful, and Eminently Successful. The difference between

**Table 1.—LEVEL OF HYPNOSIS IN 62 PATIENTS GROUPED ACCORDING TO AGE AND SEX.**

Age Group Years	MALES—8				FEMALES—54				Total
	R	L	M	I*	R	L	M	I*	
0-5	0	0	1	0	3	0	1	0	5
5-10	1	1	1	0	0	0	0	0	3
10-15	0	0	0	0	0	0	0	0	0
15-20	0	0	0	0	0	2	4	3	9
20-30	0	1	0	0	2	8	7	7	25
30-40	0	1	1	0	3	2	7	3	17
40-50	0	0	0	0	1	0	0	0	1
50+	0	1	0	0	0	0	1	0	2

\*R—Relaxed  
L—Light

M—Medium  
I—Intense

**Table 2.—RESULTS OF HYPNOSIS.**

Type of Patient	F	H	S	E S*	Total
Obstetric	9	18	9	0	36
Traumatic	0	2	3	3	8
Psychosomatic	5	14	8	4	31
Totals	14	34	20	7	75

\*F—Failure  
H—Helpful

S—Successful  
E S—Eminently Successful

**Table 3.—RESULTS OF HYPNOSIS IN PSYCHOSOMATIC AND RELATED DISORDERS**

Type of Psycho- somatic Disorder	F	H	S	E-S*	Total
Specific Fear	0	2	1	2	5
Acute Anxiety	0	2	4	0	6
Pain	3	1	2	0	6
Obesity	1	5	1	2	9
Asthma	0	1	0	0	1
Arthritis	0	1	0	0	1
Enuresis	0	1	0	0	1
Dermatitis	0	1	0	0	1
Ejac Precox	1	0	0	0	1

\*F—Failure  
H—Helpful

S—Successful  
E S—Eminently Successful



the last two lies in the fact that occasionally medical aids were utilized with hypnotic training with excellent results which could not therefore be attributed entirely to the effects of hypnosis.

In no case was complete hypnoanesthesia obtained in a parturient, but, as found by Heron (10), duration of labor was decreased in general and the amount of chemical anesthesia required was reduced somewhat. The patients were in general more quiet and cooperative throughout their labors even when, as occasionally occurred, labor seemed severe and rather prolonged. Spectacular results were obtained in diminishing nausea and vomiting and in creating an aversion to salt in several. Caloric control was assisted. Lactation which was not suppressed by medical means in one woman who was unable to nurse her child was terminated abruptly by post-hypnotic suggestion.

The most impressive and completely unlooked-for results were in the personalities of the patients, commented upon by the patients themselves as well as their families. The changes noted may be described as increased stability and calmness (decreased irritability), increased confidence in managing themselves, their families, and their homes, and often a special affection for the baby resulting from the pregnancy during which training was given.

One patient with symptoms suggestive of hyperthyroidism during pregnancy (tremor, increased pulse, looseness of the bowels, and increased perspiration) was assisted in decreasing her general level of hyperactivity beyond the level of control given by propylthiouracil which was used with caution out of consideration for its effect on the fetus.

Two of the cases of trauma were in women who were delivered without previous hypnotic training. The patients were complaining of pain during attempts at episiotomy repair under local anesthesia. Simple fixation of the patients' attention on the ceiling light accompanied by suggestions of relaxation, drowsiness, and sleep with consequent anesthesia of the perineum allowed repair to proceed without further complaint verbal or non-verbal. The other 6 instances of trauma were in children under 10. One child had a fractured wrist and the result from hypnosis was classified as successful. The remainder were lacerations, 3 of which were on the face where there would have been either a need for general anesthesia or extreme difficulty without the immobility, decreased sensitivity and cooperation produced by hypnosis—a sort of vocal anesthesia. One case in particular stands out. This involved a jagged shale cut on the bridge of the nose in a 3-year-old girl who lay quiet as the area was infiltrated with Metycaine, debrided and sutured. On return visits for suture re-

moval she followed the previously given post-hypnotic suggestion for rapid induction and lay quietly with her eyes half open as the sutures were removed. One week later she fell again striking her nose in the same way and the process was repeated in its entirety.

Analysis of even this small series of attempts to deal with psychologic processes reveals that with acute specific problems the results are simpler and easier to obtain. There was no case of specific fear or acute anxiety that was not helped. Pain when acute could be obtunded quite successfully. Problems of a chronic nature such as psychogenic tension headache of long standing, obesity of years duration, sexual problems and so on, are more difficult for one without full-scale psychiatric training, especially if one is perhaps over-cautious in venturing into what may well be water of excessive depth.

**Comment:** In classifying results the author has perhaps leaned over backward a little to keep from seeming over-enthusiastic about the benefits of this mysterious and (to many) somewhat frightening therapeutic aid. In addition to the uses classified in the tables, there have been many cases in which deeper insight into the functioning of subconscious tendencies provided by an understanding of the process of hypnosis has added greatly to the ability to be tactfully persuasive for the benefit of the patient. Chance induction of hypnosis and the recognition of this happy and facilitating accident has been an "open sesame" in a few cases.

**Summary:** An analysis of 62 cases from a small-town general practice in which formal hypnotic techniques were utilized is presented with comments. This small series indicates that hypnosis is therapeutically useful in about 85% of cases properly selected and may be considered quite successful in over a third and extremely successful in one out of ten. Hypnosis is most effective in the acute case where a specific result is desired. In more chronic cases the therapeutic return on the time invested may be unsatisfactory to general practitioners who lack an avocational interest in the field.

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## SALMONELLOSIS TRACED TO SEA GULLS IN KETCHIKAN AREA

*A. N. WILSON, M.D. and MRS. ROBERT BAADE, Ketchikan*

*Presented at the 9th Annual Convention of the Alaska Territorial Medical Association, McKinley Park, Alaska, August 17, 1954*

For many years it has been a matter of observation that with the coming of the storms of early winter, the sea gulls have left the waterfront of Ketchikan and flown back two miles to Ketchikan Lake for shelter. We have frequently had epidemics of gastrointestinal disease, generally known as "stomach flu" which have occurred at the same time of year.

The source of one outbreak of gastrointestinal disturbance in November and December 1953, has been traced to sea gulls on Ketchikan Lake which is the main source of water supply for the town. There were literally thousands of gulls on the lake that winter and the water showed gross contamination that could not be explained by runoff from the watershed, or from any other source. Birds are known to be a common source of *Salmonella* infection. In addition to containing organisms harmful to man in their intestinal tracts, the gulls here have an additional chance to carry infection in their daily travel between the sewer outfalls at low tide and the untreated water of the lake.

For these reasons a permit was obtained by Department of Health personnel from the U. S. Fish and Wildlife service to collect sea gulls for study. Shooting was done by Fish and Wildlife personnel and 14 sea gulls were collected in the first group. In addition to various worm parasites, the Alaska Department of Health Laboratory found *Salmonella* (Paratyphoid) organisms in one of the gulls. In November and December there were human cases with symptoms of *Salmonella* (Paratyphoid) infection. These symptoms are vomiting, diarrhea, abdominal cramps and fever. There were varying degrees of severity from the mild to those who need hospitalization.

Stool specimens obtained from hospital cases during the above epidemic were found to contain *Salmonella* (Paratyphoid). Medical records indicate that there were at least one hundred cases with severe enough symptoms to consult a doctor. Nobody knows how many cases were self-treated. The organisms isolated from the sea gull and the hospital patients were sent to the U. S. Public Health Service in Atlanta, Georgia for typing. The cultures from the gull and from the patients were all identified as *Salmonella* manhattan (an organism of the Paratyphoid C group).

Here, then, we have an instance of sea gulls carrying infection to a water supply and thus to the people of a town. The Laboratory work in Ketchikan was done by Mrs. Robert Baade, bacteriologist with the Alaska Department of Health most of the time since our branch laboratory was started. I should like to take this opportunity to point out some of the difficulties encountered in doing this fine piece of investigation. The trail to the lake is hard to traverse in the winter. Shooting the sea gulls and bringing them back to the laboratory took time, after which they had to be opened and cultures obtained from the intestinal tracts. Mrs. Baade felt justifiably elated on getting positive cultures from one of these sea gulls.

The pollution of reservoirs by gulls and other birds has been previously reported. Last summer I had a long talk with Mr. Clarence Sterling, Director, Division of Sanitary Engineering of the State of Massachusetts. Mr. Sterling was one of the members of the Parran team who were finishing their second survey. Mr. Sterling commented on pollution of water supplies in Massachusetts by sea gulls and sent me a

paper by G. C. Houser printed in the Journal of New England Water Works, March, 1931. In that year the Massachusetts State Legislature passed a law permitting the shooting of sea gulls around the water supply reservoirs in order to guard against this pollution.

Pollution of reservoirs has also been recorded at various other points in the United States, Canada, Great Britain, and Central American countries. On the Pacific coast of North America, Victoria B.C., San Francisco, and Los Angeles have had trouble of this sort. In San Francisco one of the reservoirs was covered in 1919 and since then the new ones have been covered.

A report from New York City published in the Journal of the American Water Works Association, December, 1925, stated that the sea gulls flocked to the Hillview reservoir in thousands between August and April and that during this time water was pol-

luted as shown by the high colon bacillus count in comparison with the rest of the year when the sea gulls were absent. Similar reports came from Scotland in 1929 and from London in 1928. One of these papers, published in the Medical Officer, 1928 by B. A. Adams reported the isolation of typhoid bacillus from gull excreta collected in the vicinity of a town where typhoid epidemics had occurred.

While efficient chlorination will break the chain between the transfer of salmonella infections by sea gulls to people through the water supply, it is certainly not pleasant to think of sea gulls roosting on logs on a city's water supply during the winter months. I might say that photographs of the dam on Ketchikan Lake during the winter of 1953 showed hundreds of sea gulls on the dam and on logs. In the benefit of public health, it would be pertinent to ask the Legislature to pass a law legalizing the shooting of sea gulls around water reservoirs.

## The Chemotherapy of Antibiotic-Resistant Staphylococcal Infections

RODMAN WILSON, M.D.  
ANCHORAGE

As every reader of the Sunday Supplement knows, hospitals today are infested with antibiotic-resistant staphylococci—organisms which frequently cause serious disease among hospitalized individuals. The overgrowth of drug-resistant mutant strains of staphylococci in a patient treated with penicillin, streptomycin, or the tetracycline drugs and the spread of these microbes to hospital personnel and to other patients is a sequence painfully familiar to all physicians (1). The tools of prevention of a majority of these nosocomial infections are, however, at hand (2) in the tightening of surgical and nursing techniques, in the detection and control of carriers, and in the curtailment in the use of antibiotic agents where need is not present, particularly in so-called "prophylaxis of infection" in clean surgical cases, in uninfected unconscious patients, in uncomplicated measles, in tracheotomized individuals, and the like, wherein the use of antibiotic agents has been shown to be not a boon, but a menace (3). But penicillin continues to be so routinely prescribed that, analagous to the detergent Tide in the Ohio River, it is actually present in measurable amounts in the floor dust of hospitals (4). Fortunately, penicillin dust is not everywhere. Once a patient leaves the hospital, the resistant strains of staphylococci are gradually submerged in the sea of sensitive organisms in the community, and a normal flora returns to his skin and nasopharynx (5).

But, despite the recent development of several new antimicrobial agents, the treatment of drug-resistant staphylococcal disease, whether it be wound



infection, cellulitis, pneumonia, enterocolitis, septicemia, or bacterial endocarditis, remains difficult. No thoroughly satisfactory drug agent exists for the cure of these troublesome and often deadly infections. Great reliance must be placed, therefore, upon in vitro antibiotic sensitivity studies as a guide to therapy, despite the shortcomings of such tests as performed with discs in a "routine" laboratory (6). The following principles can, in any event, guide therapy:

1) **Use antibiotic agents one at a time:** With a greater variety of chemically dissimilar agents now available one can to good advantage use drugs sequentially rather than additively. Combinations of agents have, by and large, been disappointing in the management of staphylococcal disease. With the exception of a very few instances of proved synergism



# Antibiotic Agents of Use in the Treatment of Drug-Resistant Systemic Staphylococcal Infections

DRUG	ACTION	ROUTE	DAILY DOSAGE		TOXIC REACTIONS
			Adult gm.	Child mg./kg.	
Erythromycin	Bacteriostatic	Oral	2-4	40-60	Gastrointestinal irritation Pain on injection
Ilotycin (Lilly)					
Ilosone (Lilly)					
Erythrocin (Abbott)					
Erythromycin (Upjohn)	Bacteriostatic	I.V.	1-2	15-30	
Novobiocin					
Albamycin (Upjohn)					
Cathomycin (Merck Sharp & Dohme)					
Ristocetin	Bacteriostatic	I.V.	2-8	50-200	Skin eruptions Neutropenia Chemical phlebitis
Spontin (Abbott)					
Bacitracin	Bactericidal	I.M.	100,000 units	1200 units	Nephropathy Pain on injection
Bacitracin (Pfizer, Upjohn)					
Kanamycin	Bactericidal	I.M.	1-3	15-45	Skin eruptions Nephropathy Eighth nerve damage
Kantrex (Bristol)					
Vancomycin	Bactericidal	I.V.	2-4	50-100	Skin eruptions Chemical phlebitis Rare eighth nerve damage
Vancocin (Lilly)					

between drug agents, the effect of a combination usually can be equalled or surpassed by giving a larger amount of the more potent drug of the pair (7). Furthermore, evidence that the development of the resistance to either agent of a pair is delayed in vivo by use of drugs in combination is meager (7). The simultaneous administration in full dosage of two or more agents of demonstrated in vitro efficacy cannot, however, be condemned. Indeed, this is probably to be preferred when managing staphylococcal endocarditis or other deep-seated chronic or subacute staphylococcal disorders. It is likely, however, that the future of chemotherapy in this field will see greater emphasis upon the use of agents singly rather than in combination.

2) **Use large dosage of drug:** Unless toxic side effects are a major danger, doses of drug agents employed in the treatment of staphylococcal disease should be well above those customarily recommended for other infections. For example, a daily dose of 1 to 2 grams of erythromycin is usually advised for the treatment of coccal infections. For staphylococcal disease a daily dose of 2 to 4 grams is much preferred.

3) **Continue treatment for a long time:** Gonorrhea can usually be cured with a single injection of procaine penicillin, while pneumococcal pneumonia

ordinarily requires but 3 to 4 days of penicillin. The eradication of staphylococcal septicemia or endocarditis on the other hand may require weeks or even months of treatment. Seven days should be the absolute minimum duration of treatment for any major staphylococcal infection.

4) **Do not abandon the use of a drug too quickly:** The management of systemic drug-resistant staphylococcal disease calls simultaneously for boldness and restraint in the employment of drug agents. Unless a patient is deteriorating rapidly or unless laboratory studies demonstrate that a drug in use cannot be expected to help, any agent should be given 48 to 72 hours to prove itself. In septicemia failure of the blood to be sterilized immediately by an antibiotic agent does not necessarily spell defeat for a given regimen (8).

5) **Do not trust bacteriostatic drugs in the treatment of staphylococcal endocarditis:** Any patient with a heart murmur and a blood culture positive for *Staphylococcus aureus* should be considered to have bacterial endocarditis, although endocarditis may be present without murmur (8). Staphylococcal endocarditis may be a fulminating disorder terminating violently within 3 days of onset or it may mimic exactly *Streptococcus viridans* subacute bacterial en-



docarditis. In either situation bacteriostatic agents such as chloramphenicol, erythromycin, novobiocin, or ristocetin cannot be relied upon to work a cure.

6) **Drain accessible pus:** Neglect of this ancient principle may spell defeat for an otherwise effective therapeutic program.

Six antimicrobial agents (table) are of particular value in managing drug-resistant staphylococcal disease:

**Erythromycin:** This drug is effective in many staphylococcal infections in doses of 2 to 4 grams daily as it is highly bacteriostatic to many strains of penicillin or tetracycline-resistant staphylococci. It is of little use in the management of bacterial endocarditis, however, because resistance to it rapidly develops as a rule. Chloramphenicol (Chloromycetin) has been widely advocated as an agent to be used with erythromycin, but, as suggested above, the effect is less than additive as a rule (7) and evidence that it prevents in vivo the development of resistance to erythromycin has not been adduced (9). Sad to say, the effectiveness of erythromycin has been greatly vitiated in many communities by capitulation of physicians to the exhortations of producers to use erythromycin in all gram-positive coccal infections. Erythromycin is an excellent drug, but it belongs on the shelf for use in proved or strongly suspected staphylococcal disease. Advertising claims to the contrary, erythromycin is not the drug of first choice in any gram-positive infection (except possibly diphtheria). Penicillin, a bactericidal agent, is much to be preferred in non-allergic patients with pneumococcal and (Group A) beta hemolytic streptococcal infections and, of course, in staphylococcal disease when the organism is sensitive.

**Novobiocin** (Albamycin, Cathomycin) is another bacteriostatic agent of value in managing staphylococcal disease. As with erythromycin, novobiocin does not often, if ever, cure endocarditis and often fails in other deep-seated staphylococcal disease. Furthermore, its use is attended by so many unpleasant, though usually not serious, side effects—skin eruptions, neutropenia, discoloration of the plasma which interferes with determination of bilirubin, and incompatibility with glucose solutions, that novobiocin can rarely be used with ease of mind on the part of the physician. It has no place in indiscriminate use in infections of dubious bacterial identity and no place in fixed combination with other drug agents (Panalba, Alba-Penicillin, Cathocillin). The use of novobiocin will undoubtedly decrease as better agents are produced, for it is an imperfect drug with annoying side reactions.

**Ristocetin** (Spontin) is an agent recently developed for the treatment of staphylococcal and enterococcal disease. It is a bacteriostatic drug without major toxic disadvantages. It can be used only intravenously, making prolonged administration a chore as well as painful to the patient at times because of the tendency for chemical phlebitis to occur. Neutropenia has developed from its use, but irreversible bone marrow damage has not been recorded. Ristocetin has been disappointing in the management of staphylococcal septicemia and endocarditis, and its activity in vitro and in vivo has been difficult to correlate (10).

**Bacitracin:** This agent is bactericidal and finds limited effective use in staphylococcal septicemia and endocarditis, usually in combination with other drugs. Nephrotoxicity limits dosage to 100,000 units daily in the adult. The appearance of protein and formed elements in the urine are to be expected when bacitracin is used, but unless the blood urea nitrogen rises, the drug need not be discontinued as a rule. Bacitracin finds further good use as a topical agent or for instillation into infected cavities.

**Kanamycin** (Kantrex) is an antimicrobial agent recently marketed which may prove to have a solid place in the treatment of staphylococcal disorders. It is bactericidal in clinically obtainable serum concentrations following intramuscular injection. Resistance to it is slow to develop. Skin eruptions, nephropathy, and eighth cranial nerve damage have followed its use. The ultimate place of kanamycin in the therapeutic arsenal for combating staphylococcal disease is yet to be precisely defined. Until such time it may be used with caution.

**Vancomycin** (Vancocin) is a potent bactericidal agent which has recently been released by the Eli Lilly Company after several years of development. It has not yet been observed to promote significant resistance in clinical use. It has cured endocarditis. Like ristocetin, vancomycin can be employed only intravenously and often causes thrombophlebitis. Otherwise, its toxicity is minor except for the rare development of eighth cranial nerve damage in patients in whom renal disease has produced unusually high blood levels. Vancomycin probably will prove to be the best of the agents herein described for the management of serious staphylococcal disease. It has won the praise of virtually all authorities in the field.

Many other drug agents have been advanced as of value in the therapy of staphylococcal disorders, but most are merely weak cousins of erythromycin. These inbred relatives include, in order of decreasing strength (7), triacetyloleandomycin (Cyclamycin, Tao), oleandomycin (Oleandomycin, Matromycin, Romacil),

carbomycin (Magnamycin), and spiramycin (Rovamycin). These agents have little or nothing to offer in treatment of staphylococcal disease, or in any other infection for that matter, either singly or in fixed combination with tetracycline (Signemycin), for better agents are readily available. Neomycin is too toxic to use parenterally, except under the most desperate circumstances. Leucomycin, furmethonol, and other agents now under investigation show promise and may tomorrow be the drugs of choice.

Finally, a rather simple suggestion to reduce the magnitude of the problem of the treatment of drug-resistant staphylococcal disease in Alaska; if all physicians were to refrain from using erythromycin (and weak cousins), novobiocin, ristocetin, bacitracin, kanamycin, and vancomycin except when antibiotic-resistant staphylococcal disease is proved or strongly suspected (or in the occasional instance when one of these agents proves after testing to be the drug of choice in, say, a proteus or enterococcal infection), then Alaskan physicians would have at least 6 agents to which they could confidently turn when a penicillin, tetracycline, or chloramphenicol-resistant staphylococcal infection presented itself. It may be a blessing that one of the best agents now available (vancomycin) can only be used intravenously, for use of this drug will not spread beyond the hospital and administration within the hospital will undoubtedly be limited. For this reason it will probably remain an effective agent. The difficulty comes in restraining the non-specific use of erythromycin, novobiocin, and kanamycin, besieged and importuned as we are to their use "in all coccal infections". If restraint were exercised, our therapeutic problem in Alaska need never assume alarming proportions.

In ages past people have feared from time to time that hoards of onrushing rats would one day drive them from their refuse-laden cities. Latter-day pessimists have half-seriously suggested that the staphylococcus would one day inherit the earth. The enemy is extraordinarily stubborn and exceedingly

adaptable, but, all things considered, not nearly so clever that it can permanently outwit the soil bacteriologist and the pharmaceutical-house chemist. There will always be a Pied Piper of Pfizer or Lederle or Lilly with a new chemotherapeutic pipe to lure the pestilential bacterium to its destruction—at least temporarily.

## SUMMARY

Several potent drugs are now available for use in antibiotic-resistant systemic staphylococcal infections. Among them are erythromycin, novobiocin, ristocetin, bacitracin, kanamycin and vancomycin. These agents should, by and large, be reserved for use only in proved or strongly suspected staphylococcal disease.

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# Julius Lempert's Contribution To Alaskan Ophthalmology

**MILO H. FRITZ, M.D.**

ANCHORAGE



From 1936 through 1940 I went through the residency in ophthalmology and otolaryngology at Duke University. We removed tonsils and adenoids under light general anaesthesia. We did submucous resections of the nasal septum. We performed many simple mastoidectomies for acute mastoiditis. We intubated or tracheotomized infants with diphtheria, often at the last moment. Some of the men, in their last year, did modified radical mastoidectomies but a complete exenteration of the mastoid labyrinth was never, during the years I was there, accomplished. We occasionally essayed journeys into the tricky field of rhinoplasty and rarely removed a thyroglossal duct cyst if we could beat the house officers of the general surgical service to the punch and get the patient admitted to our service before he was admitted to theirs.

Mastoidectomies in those dim and distant days were done with a set of instruments more calculated to bring joy to the heart of one trying to lead joints between sections of cast iron pipe than to a doctor who was working in one of the anatomically most treacherous areas in the human body, surrounded as it is with such vital structures as the dura of the middle and posterior fossae, the labyrinth, the carotid artery, the jugular bulb and, above all, the facial nerve.

The young man who followed me in the hierarchy in the combined residency of ophthalmology and otolaryngology as it existed at Duke University Hospital at that time was Doctor Ralph Arnold, now

on the teaching staff of that wonderful institution. In 1938 we both, within an hour, read Julius Lempert's monumental contribution entitled "Improvement of Hearing in Cases of Otosclerosis" as it appeared in the Archives of Otolaryngology for July 1938, Volume 28, pages 42-97. I recall how tremendously excited we were about it and how we hastened to the senior members of the staff saying that in our opinion it was very worthwhile for someone on the house staff to observe this new surgery with the idea, perhaps, of introducing it to the ENT Department of our University. This idea was not received with enthusiasm.

Neither Ralph Arnold nor I were receiving any stipend for our services and one unkind house officer on the pediatric staff said that I was worth every cent of it! Yet the idea that Arnold and I cherished was to go and watch Julius Lempert do this operation whether it could be introduced at Duke University or not.

Time went on and then, entirely unknown to us, a lawsuit was instituted in New York City in which the findings of an intern during a physical examination became a crucial point. The patient's name is forgotten. I was the intern and the events which were to be brought forth at the trial occurred at the Brooklyn Hospital where I had interned two years before going to Duke University. The insurance company wrote to me and asked if, in return for free passage to and from New York City and fifty dollars, would I be willing to testify at the trial. That was like asking a starving man whether he would like to have a turkey dinner with all the fixings. I remember rushing over to Ralph Arnold's room waving the letter and telling him that here we had a chance to learn something about this Julius Lempert and his new technique for the improvement of hearing in otosclerosis.

With eager hand I inscribed a letter to the insurance company and told them I would be more than happy to come on the terms stipulated and received permission from my superior in the department of otolaryngology to make the trip.

Accordingly, I appeared at the trial, made the appropriate comments when asked by the lawyers of the opposing sides, was discharged, paid off and had two whole days to myself before it became necessary to return to my duties as assistant resident in ophthalmology and otolaryngology at Duke University.

Meanwhile, clearly outlining that I was, of course, a very low member on the totem pole at a very high class university, I had written to Doctor Lempert and asked if it would not be possible for me to call upon him while engaged in New York un-



under the circumstances just mentioned. With graciousness that could hardly have been exceeded had I been the Professor of Otolaryngology himself instead of the merest neophyte, Doctor Lempert replied in a letter which I still possess that he would be very happy to have me come to his hospital and watch him do one of these operations.

Accordingly, I arrived on Doctor Lempert's doorstep, was accorded every courtesy and consideration and was given a loupe and light combination with which to peer over his shoulder as he methodically and deftly went through his monumental operation that has been so influential, both directly and by the kind of work it subsequently stimulated, in the restoration of hearing to thousands of individuals throughout the world.

In due course my residency came to an end, and I moved to Southeastern Alaska to practice for the rest of my life only to have said life interrupted by a call to arms, which lasted over five years before I was eventually mustered out. I spent a brief but happy time as a Staff Member of the Eye Institute of Dartmouth in Hanover, New Hampshire and two years as a Research Fellow and part-time practitioner of ophthalmology alone in New York under the benign and invaluable influence of Doctor R. Townley Paton before eventually returning to my first and only love, Alaska.

A beneficent government made it possible for any honorably discharged soldier to invoke a generous provision for his further education known familiarly as the GI Bill of Rights. Having been appalled at the prevalence and incidence of mastoiditis in Alaska, I had found, as soon as I had returned to Alaska for what proved to be last time in 1948, that the classical attack on the problem of mastoiditis was hopeless and therefore I invoked my GI Bill, requesting that I be given permission to take a course in fenestration surgery for the improvement of hearing in cases of otosclerosis at the Lempert Institute of Otology in New York City. This was in 1950 and in due course the Veterans Administration granted permission and eventually footed all the bills connected with it.

In that memorable May and June of 1950, with six or seven other doctors from various parts of the United States, I attempted to attain mastery over the temporal bone with the idea of becoming familiar enough with it so that I could, with greater ease, facility, safety and for the benefit of my patients, do radical mastoidectomies of which there were thousands to be done.

I still remember sitting down at the first cadaver head upon which I was to do my first operation. I had purchased a light and loupe and after making the initial gross maneuvers to uncover the mastoid labyrinth I put on my light and loupe and

there before me, through the endaural approach, lay the mysteries and tortuous anatomy of the temporal bone, clearly delineated and easy to see. Quite aside from an advance in surgical technique, Doctor Lempert had brought to the sub-specialty of otology the twin blessings of illumination and magnification.

As all things must, whether good or bad, my final cadaver head operation for fenestration was completed at last to the apparent satisfaction of the most exacting medical mentors for whom I had ever tried to do something praiseworthy . . . Julius Lempert and his brilliant young associate J. H. Thomas Rambo.

The gut-busting Thursday night suppers that Doctor Lempert stood us all to and the challenging lectures and demonstrations given by consulting members of the Institute were drawing to a close and soon it became necessary to bring my new knowledge to Alaska for the use of my fellow citizens.

The struggles with mastoiditis in Alaska have been described elsewhere and the training of the personnel and the acquisition of instruments for carrying out what I have learned were eventually safely undertaken and, as I had continuously done since returning to Alaska in 1948, I resumed an active practice in surgical and medical ophthalmology as well as otolaryngology.

Then one day, and please believe me that I was well under the presbyopic age at the time, while struggling with an iridocyclitis for the relief of glaucoma, it suddenly came to me that it was not reasonable for me continuously to find fault with the direction in which the light rays from the operating room light were falling on the field nor was it reasonable of me to complain to myself or anyone that I could not clearly see that portion of the anterior chamber in which I was most interested. And at one such moment the very obvious and brilliant idea entered my brain, why not use the Lempert light and loupe in the performance of ophthalmological surgery? After all, I thought, if one can do better temporal bone surgery by virtue of better light and magnification would not the same thing hold true with the human eye?

Accordingly, I tried this revolutionary idea on a couple of cases involving surgery on the ocular muscles and was immediately rewarded with the unbelievable satisfaction of having the light always fall exactly where I was looking. Also, the details of ocular anatomy became much more easily seen and handled. The only difficulty was that a suture end would sometimes get out of the field of vision and occasionally I would bump a knuckle of my glove against the contaminated head-light and would have to change them. But it was not many days before these little accidents seldom occurred and as soon



as I had begun the practice of having my own surgical nurse helping me in these efforts I had no further difficulty. As a matter of fact, my operating time and the wear on the nervous system of not only myself but those young women who have so faithfully helped me throughout the years with this type of work became less and less.

Eventually the day came when I tried this technique on a cataract operation. I remember with what gratification I was able to place my sutures exactly halfway through the cornea and halfway through the sclera rather than perforating into the anterior chamber. I remember how I enjoyed the precision of taking hold of the iris at its periphery just exactly where I wished to, dialyzing it and then pulling the dialyzed portion into the wound to make a small peripheral iridectomy. I recall how I was able to see the zonule like a thin piece of plastic extending from the region behind the iris root out to the equator of the lens. Dissection became an exact cutting of membrane across tension lines instead of a blind stab in the shadow of one's head or hand. I recall how, with exactness, I was able to gently dissect the zonule away from its attachment to the lens and thus begin the chain of events that would allow, in almost every case, the lens-in-capsule to be removed triumphantly from the anterior chamber without dragging out iris, vitreous or any other structures to which it might

have been attached because I could not see it as I now could with the brilliant illumination and magnification supplied by the Lempert loupe and light.

The name of Julius Lempert is known to almost every physician, and certainly every otologist, throughout the world today. It is also known to every Eskimo or other Alaska native upon whom I have done temporal bone surgery for the suppurative diseases of that structure because I have made it a point to tell these people, as they have come and gone in hundreds since 1950, of the great city doctor who taught me how to do this surgery that has often resulted in the restoration of a child's life or the rehabilitation of an individual whose foul aural discharge made him a pariah among his peers, especially if living in a small, crowded cabin.

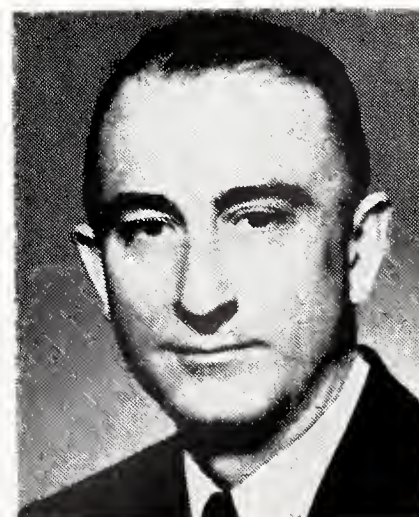
It is difficult for any surgeon to assess his skill. It is more difficult for him to assess his improvement because, as time goes on, most of us improve in our technique owing to practice, the improvement of instruments and the development of ancillary medications and techniques that improve performance. But even without the necessary laboratory controls it is my firm belief that I have been able to serve my Alaskan patients better and more efficiently since invoking Lempert's great contribution to ophthalmology . . . Light and Magnification . . . where both are needed!

## STATE COURTS AS THEY AFFECT PHYSICIANS IN ALASKA

*JOHN C. HUGHES, LL.B.*  
ANCHORAGE

The advent of Statehood in Alaska raises many interesting problems for coffee time discussion. With all of the speculation now being posed as to what to do next, the practicing physician might well ask the question: "What effect, if any, will Statehood in Alaska have upon my practice?" This question at the present moment may be a little bit premature but it is certainly the hope of all practicing lawyers that the advent of Statehood will bring with it more Court facilities to more readily dispose of the backlog of cases including unlitigated personal injury cases and it is in this field that the practicing physician may very well feel the impact of increased activity and more frequent trips to the Court room in the years to come. It is the writer's present thinking that the momentum of trial will not greatly increase for at least one year but in any event the tempo of trial work should increase commencing six to eight months from the activation of the State Superior Courts.

The writer has been asked to suggest to Alaska physicians the problems, if any, that may present themselves for solution in respect to the association



between doctors and lawyers in the discharge of the State Court backlog. Will there be any change? The answer to this question must, we think, be in the affirmative.

It should be noted, however, that with the use of some discretion on the part of the two interrelated professions involved, the transitional period and future cooperation between the Lawyers and Doctors



should be painless. As a practicing Lawyer I have for the past years, had many occasions requiring the appearance of a Doctor in the Alaska District Courts for the giving of impartial medical testimony. I can honestly state that never have my requirements for medical testimony in litigation presented a great problem. I have frequently heard expressed a latent regret on the part of a busy physician to appear in Court. I have even on occasion heard of litigants changing from one Doctor to another for the reason that their initial family physician had a known reluctance or a declared policy against appearing in Court. Litigants have an inherent right to their day in Court and they are entitled to the impartial testimony of a medical witness such as only their physician can give. What then is the problem?

The problem is many fold; the physician is a busy man; the day and often the night is too short to tend to his many professional duties; Court appearances often cut into or threaten long projected operative procedure; poorly scheduled Court appearances leave the physician twiddling his thumbs in the Court corridors, with a subpoena in his hip pocket, while the patients wait in his office; cross examination in Court, on problems of medicine without previous warning, often either pit one Doctor against another or have the appearance of an attempt to ridicule the Doctor who comes to help in the search for the truth; the lawyers are frequently uninformed or heedless of the proposition that the Doctors too have a problem in arranging tightly scheduled use of operating rooms that cannot be changed upon short notice and are seriously disturbed if not entirely lost in the event that the physician fails to avail himself of the operating facility at the time scheduled, which time may conflict with a Court appearance. These and many more constitute the problems facing the physician and in a large measure the problems stem from a lack of understanding between the Doctor and Lawyer. If in fact, as we suspect, there is to be an increased tempo of Court appearances, a problem is apt to become more pronounced under Statehood unless the interrelated professions meet head-on their problem and resolve their differences through courteous cooperation and understanding.

We have heretofore indicated that the increased tempo of litigation will increase the occasions of Court appearances for the practicing physician. The backlog of personal injury cases cannot be disposed of without the testimony of the medical practitioner who must supply the necessary ingredient of impartial medical testimony. Time will not permit a full coverage of all of the problems for it is the intent of this paper to raise the question and to alert those members of the interrelated professions who are interested in a timely solution.

It is only reasonable to believe that with more Courts available that the Court appearances of the Doctors, particularly in the Fairbanks and Anchorage areas, where the backlog of litigation is more pronounced, will be the points of first impact. Heretofore a great amount of the District of Alaska Court time has been spent in the trial of criminal matters. With a reasonable speculation that there will be from six to seven Superior Courts supplementing if not replacing the now existent four District Courts, the impact of medical appearances in Court procedures may very well be pronounced.

It would be well for both the Doctors and the Lawyers of the new State of Alaska to study the text of the "National Inter-Professional Code for Physicians and Attorneys" (See pages 27 and 28). This code was prepared by the American Medical Association and the American Bar Association liaison committee and adopted in June and August of 1958 respectively by the national associations involved. The code, as of this writing, has not appeared in print in the American Bar Association Journal. However, the writer has secured from the chairman of the American Bar Association committee, Frank C. Haymond of Charleston, West Virginia, a copy of the code which appears in its entirety at the end of this article.

All too frequently a practicing physician who appears in Court either enters the Court room or comes away from the Court room with the feeling that he has met an adversary in the person of a cross examiner in a Court proceeding. If the Doctor leaves the Court with the impression that he has been on the receiving end of the Court room conflict, he may very well have the impression that if he never goes back to Court again it will be soon enough.

In truth and in fact the province of the Doctor in a Court is to give impartial medical testimony. It is not the province of the Doctor to determine what the money damages of the patient are but merely to display to the Court in clear and concise language the facts of injury and treatment together with the fair opinion as to present or future disability if, as and when those questions are put to him appropriately by counsel involved in the litigation. This may and frequently does require that the Doctor explain the litigant's condition both professional and lay language.

It would probably stand the Doctor in good stead if he were to take the attitude that he was swinging the axe for neither side and that he, in giving his testimony, is hueing the line. If a Doctor assumes the attitude that because he is called by one of the parties, he must shade his testimony to meet the requirements of that person, he not only detracts from



his own testimony but builds for his profession a liability that may well have far reaching effects. While it may be true that a lawyer can argue either side of a particular case with equal versatility, that position, if it is true, probably should be left to the lawyers involved so far as the Doctors are concerned.

It is not intended in this brief statement to lodge an indictment against the Doctors, for indeed the writer's experience with the medical profession insofar as it applies to Court room work has been good and has been generally carried out in an atmosphere of pleasant cooperation.

We well realize that some lawyers may take the attitude that cooperation with the medical profession is unnecessary inasmuch as a lawyer can arm himself with a subpoena and accordingly direct and compel by Court order if necessary, the appearance of a busy physician at any time such an appearance is required. While there are items mentioned herein on which the writer feels the Doctors should inform themselves, nonetheless it certainly is a two-way street, in which the lawyers can likewise inform themselves as to their duty in regard to this inter-related professional problem. I hold no brief for the proposition that the problem here presented is solely for the remedial attention of the Doctor.

If we can but generate a spirit of cooperation between the two professions it would be hoped that we can minimize, if not entirely eliminate, the use of a subpoena so far as the obtaining of medical testimony is concerned. All too frequently the lawyer calling the medical witness fails to previously

alert the Doctor in advance of trial; fails to discuss with the Doctor the field of testimony which is intended to be covered at the time of the Court proceeding and in general expects the busy practitioner to be a walking book of knowledge in respect of all matters of medical testimony, some of which the practitioner may not have reviewed or even seriously considered since medical college days.

It is the sincere hope of the writer that the local inter-professional groups will study the National Inter-Professional Code for Physicians and Attorneys and will take timely steps toward the end that a workable arrangement can be established in each community.

Medical testimony, reports and general information can and should be obtained without inconvenience to either profession and without the use of the subpoena. All Doctors should be informed that under the Federal Rules of Civil Procedure or their counterparts, which govern the mechanics of gathering and perpetuating testimony, in most modern Courts, there are no secrets. To a large extent the shroud of privilege between Doctor and patient-litigant has been swept aside. The information will be obtained and accordingly it serves both professions well to accomplish the recordation of fact without friction between the groups.

The old saw "a stitch in time" can be applied with meaning to the situation here discussed. The needle and the thread must first be brought together; otherwise there will not be accomplished the first stitch.

## NATIONAL INTER-PROFESSIONAL CODE FOR PHYSICIANS AND ATTORNEYS

### PREAMBLE

The provisions of this Code are intended as guides for physicians and attorneys in their inter-related practice in the areas covered by its provisions. They are not laws, but suggested rules of conduct for members of the two professions, subject to the principles of medical and legal ethics and the rules of law prescribed for their individual conduct.

This code constitutes the recognition that, with the growing interrelationship of medicine and law, it is inevitable that physicians and attorneys will be drawn into steadily increasing association. It will serve its purpose if it promotes the public welfare, improves the practical working relationships of the two professions, and facilitates the administration of justice.

### MEDICAL REPORTS

The physicians upon proper authorization should promptly furnish the attorney with a complete medical report and should realize that delays in provid-

ing medical information may prejudice the opportunity of the patient either to settle his claim or suit, delay the trial of a case, or cause additional expense or the loss of important testimony.

The attorney should give the physician reasonable notice of the need for a report and clearly specify the medical information which he seeks.

### CONFERENCES

It is the duty of each profession to present fairly and adequately the medical information involved in legal controversies. To that end the practice of discussion in advance of the trial between the physician and the attorney is encouraged and recommended. Such discussion should be had in all instances unless it is mutually agreed that it is unnecessary.

Conferences should be held at a time and place mutually convenient to the parties. The attorney and the physician should fully disclose and discuss the medical information involved in the controversy.

## **SUBPOENA FOR MEDICAL WITNESS**

Because of conditions in a particular case or jurisdiction or because of the necessity for protecting himself or his client, the attorney is sometimes required to subpoena the physician as a witness. Although the physician should not take offense at being subpoenaed the attorney should not cause the subpoena to be issued without prior notification to the physician. The duty of the physician is the same as that of any other person to respond to judicial process.

## **ARRANGEMENTS FOR COURT APPEARANCES**

While it is recognized that the conduct of the business of the courts cannot depend upon the convenience of litigants, lawyers or witnesses, arrangements can and should be made for the attendance of the physician as a witness which take into consideration the professional demands upon his time. Such arrangements contemplate reasonable notice to the physician of the intention to call him as a witness and to advise him by telephone, after the trial has commenced, of the approximate time of his required attendance. The attorney should make every effort to conserve the time of the physician.

## **PHYSICIAN CALLED AS WITNESS**

The attorney and the physician should treat one another with dignity and respect in the court room. The physician should testify solely as to the medical facts in the case and should frankly state his medical opinion. He should never be an advocate and should realize that his testimony is intended to enlighten rather than to impress or prejudice the court or the jury.

It is improper for the attorney to abuse a medical witness or to seek to influence his medical opinion. Established rules of evidence afford ample opportunity to test the qualifications, competence and credibility of a medical witness; and it is always improper and unnecessary for the attorney to embarrass or harass the physician.

## **FEES FOR SERVICES OF PHYSICIAN RELATIVE TO LITIGATION**

The physician is entitled to reasonable compensation for time spent in conferences, preparation of medical reports, and for court or other appearances. These are proper and necessary items of expense in litigation involving medical questions. The amount of the physician's fee should never be contingent upon the outcome of the case or the amount of damages awarded.

## **PAYMENT OF MEDICAL FEES**

The attorney should do everything possible to assure payment for services rendered by the physician for himself or his client. When the physician has not been fully paid the attorney should request permission of the patient to pay the physician from any recovery which the attorney may receive in behalf of the patient.

## **IMPLEMENTATION OF THIS CODE AT STATE AND LOCAL LEVELS**

In the event similar action has not already been taken this Code should, in the public interest, be appropriately implemented at state and local levels for the purpose of improving the interprofessional relationship between the legal and medical professions.

## **CONSIDERATION AND DISPOSITION OF COMPLAINTS**

The public airing of any complaint or criticism by a member of one profession against the other profession or any of its members is to be deplored. Such complaints or criticism, including complaints of the violation of the principles of this Code, should be referred by the complaining doctor or lawyer through his own association to the appropriate association of the other profession, and all such complaints or criticism should be promptly and adequately processed by the association receiving them.





# History of The Orthopedic Program For The State of Alaska

*PHILIP H. MOORE, M.D., F.A.C.S.*

SITKA

This presentation is not intended to be the usual one. I am not presenting statistics but will try to give you an informal history of the development of the orthopedic program and describe our attempts to solve some of our problems. This paper will be of interest to you because Alaska is one of the areas where pioneer medicine is gradually being replaced by organized programs and modern medicine. Every physician in Alaska is a participant.

The credit for the idea for an organized orthopedic program in Alaska should properly go to C. Earl Albrecht, M.D., who until 1956 was the Commissioner of Health. Credit should also be given to Mrs. Margot Hoppin of Anchorage, Alaska, formerly the President of the Alaska Crippled Children Association. Both Dr. Albrecht and Mrs. Hoppin were aware of the need in Alaska. A preliminary survey was done in the summer of 1946. The need of help for the natives and whites unable to bear the financial burden of surgery and hospitalization was established.

Prior to 1947 small numbers of children were sent to the States of Washington and Oregon for care. Dr. John LeCocq and his associates were largely responsible for the excellent care they received. Follow-up care was very difficult and many had recurrent deformities because of this.

In the winter of 1946-47 Dr. Albrecht was successful in convincing me that I should come to Alaska to help organize and carry on this program. He was greatly aided by Ernest Gruening, who was then Governor of Alaska. Having previously visited Alaska in 1926, I had an unusual amount of interest in the possibilities of the Territory, but I do not believe that I would have made the decision to go to Alaska without the full-hearted cooperation of my courageous wife. Without the continued and whole-hearted cooperation of the Governor of Alaska, the Commissioner of Health, and my own family and many friends, we could not have instituted this program.

In accordance with this decision I arrived at the former Japonski Island Naval Air Station near Sitka in March 1947. This program was possible be-

cause of certain transfers of property from the U. S. Navy to the Alaska Native Service. It was agreed that the former Naval dispensary should be used for the treatment of crippled children in Alaska. The Alaska Native Service and the Alaska Department of Health entered into an agreement which stated that the Alaska Department of Health would furnish an orthopedic surgeon and an orthopedic nursing supervisor. The Alaska Native Service was to furnish and maintain the physical facilities.

When I arrived, I found approximately 25 crippled children in the hospital. Most of them were Alaska Natives. About 95% of the diseases were the result of tuberculosis of the bones and joints.

When the Navy departed, they removed a good share of the medical equipment, and the buildings had fallen into disrepair. There was a distinct lack of enthusiasm by both Government and private parties concerning the idea of an orthopedic program for the Territory. I was acutely aware of my lack of knowledge in the treatment of tuberculosis of the bones and joints. I would be less than honest if I did not admit that during the first two months of my stay in Alaska, I gave serious consideration to resigning because I believed that the difficulties were insurmountable. You, who have worked with crippled children, will understand when I tell you that it was next to impossible for me to give up after working with these children for a very short period of time.

My first task was to hold extensive clinics throughout Alaska, and this, plus the work of the 1946 survey, resulted in an initial backlog of 440 critical patients who needed hospitalization at the earliest possible date.

At the beginning I used the then accepted methods of immobilization, bed rest and general care for tuberculosis of the bones and joints. My observations led me to believe that this resulted in undue crippling and unnecessarily long periods of hospitalization. Study trips to various centers convinced me that our common knowledge of this disease should be improved. Exception to this was the work that

was being done by C. Howard Hatcher, M.D., of Chicago and David Bosworth, M.D., of New York. I am indebted to them for continued help and stimulation. Mary S. Sherman, M.D., then associate in orthopedics at the University of Chicago, Robert D. Ray, M.D., then Head of the Orthopedic Section, University of Washington. Austin T. Moore, M.D., of Columbia, S. C., and the late Sterling Bunnell, M.D. of San Francisco, California, specialists of international note, acted as consultants and actually came to Alaska where they helped with field clinics and surgery. To them we owe a deep debt.

In 1948 we performed the first major surgery in a field hospital at Bethel on about 20 patients. In 1949 similar treatment was carried out in Kotzebue. In 1950 we began our first experiments on the use of streptomycin. The results have been published.

By this time we believed that much earlier and more radical surgery resulted in less residual crippling and in a decrease in patient hospital time. Early fusion was being used in an increasing number of cases and we began to study the use of bone bank material for major fusions on very small children and in those so debilitated that they would not tolerate the extra trauma necessary to obtain autogenous bone. These experiments led to the use of rib material obtained from the Department of Thoracic Surgery at Mt. Edgecumbe. We agree with others that fresh autogenous bone is preferable, but the use of frozen bone bank material has aided our program materially.

In 1951 we successfully transported frozen bone by using carbon dioxide and an insulated cabinet. This bone was used to do major fusions in several cases in Kotzebue, some 1500 miles away from the orthopedic center. Successful fusions were eventually obtained in most of these cases. E. S. Rabeau, M.D., medical officer in charge of the Kotzebue Alaska Native Service hospital was largely responsible for the success of this field operation.

Additional developments in the program have been the training of residents in orthopedic surgery from the University of Washington and the University of Illinois. Consulting orthopedists were William J. Mills, Jr., M.D., of Anchorage and Paul B. Haggland, M.D., of Fairbanks. They have done outstanding work.

We have treated and discharged approximately 1000 patients and the backlog of patients with tuber-

culosis of the bones and joints has decreased. The pathology presented by the patients in the hospital has changed. Tuberculosis of the bones and joints is encountered less frequently and we see an increasing proportion of orthopedic problems of a more common type. At the beginning we anticipated a long stay in the hospital for each tuberculosis patient, sometimes running into years. At the present time we calculate their stay in months. Another change is a result of early diagnosis of tuberculous joints. These cases are being treated with antituberculosis drugs, and we do not fuse unless the joint destruction is severe. This does not apply to tuberculosis of the spine.

We are now experimenting with a new surgical approach to the problem of scoliosis in certain selected cases and will give a report on this when we have acquired sufficient knowledge.

In 1955 the hospital facilities of the Alaska Native Service were transferred to the United States Public Health Service. The Alaska Department of Health is responsible only for the "non-Native" beneficiary.

Our greatest failure in Alaska has been our lack of success in establishing a rehabilitation or an habilitation program following hospitalization. We believe that there is much to be done with education, occupational therapy, and vocational training which might enable patients to become self-sufficient. We will continue our efforts to stimulate such a program.

In 1956 I resigned as a full-time orthopedist to re-enter private practice. Acting as a consultant, I have viewed with considerable alarm the decrease in orthopedic field clinics and organized hospital treatment. The orthopedic residency program has been discontinued, and there has been no replacement of a full-time orthopedist. Our master-file at Mt. Edgecumbe containing the essential data on approximately 7000 orthopedic cases is now about 2 years behind. The data arriving in field and hospital reports will not be replaceable. Unless definitive steps are taken to re-organize the program, its future is in doubt. This program should be unified and centrally directed without regard for race. Competent orthopedists should direct the orthopedic care. In my opinion, the need for a continuing program is urgent. Without such a program we may again find an increasing number of people crippled and dependent on our tax funds for support.



# ARCTIC HEALTH RESEARCH CENTER, An Introduction

A. B. COLYAR, M.D.

ANCHORAGE

*Arctic Health Research Center, U. S. Public Health Service*

The Arctic Health Research Center at Anchorage, Alaska is a permanent field station of the U. S. Public Health Service. The main laboratories are located in downtown Anchorage. Other facilities are located in and around Anchorage, at Eklutna, Fairbanks, and in Gambell on St. Lawrence Island.

The station is a branch within the Bureau of State Services, one of the four bureaus of the U. S. Public Health Service, Department of Health, Education, and Welfare. Locally, it is directed by a medical officer and consists of six research sections, a research library and necessary auxiliary services. Each of the research sections is directed by a principal investigator selected for his experience in and knowledge of his particular field.

## BACKGROUND

As early as 1936 the Public Health Service assigned medical officers, nurses and engineers to the Alaska Department of Health. Although the need for medical and biological research in relation to public health had been recognized for many years, it was not until 1946 that the first official expression of the need came. In that year Secretary of Interior, Julius Krug, asked the American Medical Association to investigate health conditions in Alaska. Two years later Dr. Arthur Bernstein, Chairman of the Special Alaska Committee of the American Medical Association, made the following statement to the House Sub-Committee on Appropriations:

"When the committee completed its review of public health problems in Alaska, it concluded that there was a basic need for Arctic scientific investigations. The committee recommended that an Arctic institute of health be established for the study of the Arctic and its bearing on health, sanitation, nutrition, engineering, construction, food, clothing and footwear . . . and it is recommended that the United States Public Health Service and the Department of the Interior take an active part in instituting immediately Arctic scientific investigations, with the anticipated establishment of a permanent institute of health to continue these studies."

Research work began in 1948 when Congress

requested that the Public Health Service establish a center in Alaska, and appropriated in excess of one million dollars for the first year. Most of this amount was designated for use by the Territorial Health Department for expanding existing health services. The Center thus became both a research organization and an office for administering special health grants and providing technical professional assistance to Alaska.

The research carried on by the Center is filling important gaps in our knowledge. Up to the time the Center was established information on health problems and biologic adaption to low-temperature environments was almost completely lacking. Modern science has delved deep into health problems in temperate and and tropical regions of the globe and, as a result, we now have many methods for coping with disease and conditions found in these regions. Certainly there is a need to increase our knowledge of colder areas. Only to the extent that hazards to health are explored and eliminated can Alaska and other parts of the far North attract a stable, home-seeking population. Obtaining basic information necessary for healthful living in low-temperature areas is thus the major objective of the Arctic Health Research Center.

## PLANNING THE PROGRAM

Planning a program to study health problems of low-temperature areas involved consideration of a number of unusual factors. Prior to this time, most health investigations had been limited to sporadic and often unrelated expeditions sent to Alaska to investigate bits and pieces of a given problem, and had lacked the scope and continuity necessary for sound planning and development. The cost of short-term expeditions was great and is still excessive. Cumulative data is needed and requires continuous year-round observations. Background information on the natural environment of the North is essential to permanent settlement. For these reasons the Center was located in Alaska.

The investigative program is carried on largely by a resident staff devoting full time to research. Development of auxiliary services, such as the research library, statistical services, instrument shop and animal colonies, has made the Center relatively self sufficient, making it unnecessary for the staff



to rely heavily on sources outside Alaska. Other research groups and local physicians have made good use of the excellent library services.

Limited resources have made it necessary to concentrate on fields presenting the greatest immediate health problems. An attempt has been made to obtain some balance between basic research, such as biochemistry and physiology, and developmental research, examples of which include studies in water supply, waste disposal and insect control. Under the heading of what might be called background research, are studies of animal-borne diseases transmissible to man and the study of distribution and life habits of biting insects.

When investigative activities were first undertaken, the almost complete lack of information pertaining to Alaska in the various scientific fields required the staff to start from scratch, painstakingly collecting and sifting the few available data and making on-the-spot surveys.

## **EXAMPLES OF STUDIES**

The following examples of problems which have been or are now under study best illustrate program interests:

### **Biochemistry and Nutrition**

Unusual dietary patterns of Eskimos and Indians have been of interest for many years. Current surveys will give detailed information on the diet of a large group of aboriginal Alaskans. Correlated with this information will be data on serum cholesterol, prevalence of coronary disease and, eventually, occurrence of atherosclerosis. This information will provide another segment of the epidemiology of atherosclerotic heart disease now being pieced together from all parts of the world.

Other studies have revealed the occurrence of chronic iron-deficiency anemia among large groups of fish-eating Eskimos of Alaska, together with Vitamin A deficiency. The apparent rarity of diabetes mellitus among older Eskimos is not yet explained. Methemoglobinemia, a rare disorder, congenitally acquired, is fairly common among Kuskokwim Eskimos. The disease is characterized by cyanosis, and is precipitated by deficiency of Vitamin C.

### **Environmental Sanitation**

Community and household water supplies and sewage disposal methods present the most costly problems found in cold regions. A special design for municipal water distribution has been worked out on the basis of work done at the Center and installed in Fairbanks with good results at great saving. Effects of permafrost and long winter freeze on water storage and supply and on waste disposal continue to occupy the attention of engineers in northern Alaska.

Practical methods for detection of toxic clams and mussels is being sought. A simple test would be a boon to the industry in Alaska and elsewhere.

Housing design and testing for suitability of construction and occupancy under arctic conditions is a project now in its final stages. Use of local materials and simple design for construction by local labor are practical criteria.

### **Entomology**

Survey for identification of Alaskan biting insects, determination of their life cycles, breeding habits and distribution, as a basis for development of practical control measures, has occupied this section for several years. A workable device for control of insects around camps, households and other such small areas was designed and tested in the early years of the Center's operations. Although the Center no longer supports insect control projects, consultation on methods is still given.

### **Epidemiology**

A program for home treatment of tuberculosis was started by the Center among Eskimos and Indians using Isoniazid and PAS, beginning in 1954, in cooperation with the Alaska Native Service (now Alaska Native Health Service) and the Alaska Department of Health. Currently this research group is testing the prophylactic value against tuberculosis of Isoniazid and is beginning an epidemiological study of phlyctenulosis.

Shigella and fish tapeworm have been found to predominate among Alaskan aborigines as causes of enteric diseases. Isolation of a number of viral agents suggests an additional causal factor in enteric disease.

Epidemics of common infectious diseases as well as outbreaks of unidentified febrile disease have been studied. Methods for obtaining reports of morbidity in remote villages have included training and use of lay reporters.

### **Physiology**

Adaption of animals and man to arctic environments is best studied in nature. AHRC biologists have studied cold-adapted animals in Alaska, Canada and Norway. Physiological mechanism of man's adjustment to cold is now the subject of a series of field and laboratory projects in collaboration with scientists from Canada, Norway, Sweden and England.

### **Zoonotic Diseases**

Diseases of animals transmissible to man flourish in all climates and countries. In Alaska practically nothing was known of this group of diseases until a few years ago. Examination of several thousand animal carcasses obtained from trappers and hunters has furnished a good idea of animal diseases of para-



sitic origin. A number of parasites of animals affecting man and domestic animals are of public health importance.

The distribution within Alaska of alveolar hydatid disease and the life cycle of the causal parasite has been worked out by investigators on this program. Studies in both field and laboratory continue on hydatid diseases, fish tapeworm, trichinosis, rabies, tularemia and other diseases commonly found in Alaskan animals.

#### **Clinical and Social Science Studies**

Prevalence of coronary heart disease has been determined in a group of over 400 Eskimos and Indians, aged 35 and over. Data is now being analyzed and will be published in the next few months.

Social and psychological problems of Eskimos hospitalized for treatment of tuberculosis in Seattle

sanatoria were studied. Results were reported in the American Journal of Nursing.

#### **COOPERATIVE ACTIVITIES**

State and federal agencies both within and outside Alaska cooperate with the Center's staff in carrying out many projects. Among them are the Alaska Department of Health, the University of Alaska, and the Department of Education, the Alaska Native Health Service, Bureau of Indian Affairs, the Alaska Command and its Arctic Aeromedical Laboratory, U. S. Fish and Wildlife Service, and many others. Close contact is maintained with a number of universities and institutions interested in the Arctic. Many individual physicians have been most generous in connection with infectious disease studies, giving freely of their time on a number of projects.

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## **ALASKAN PSYCHIATRY-Interim Report**

**J. RAY LANGDON, M.D.**

*Assistant Chief, Section of Mental Health, Alaska Department of Health  
ANCHORAGE*

In the two years since Alaska assumed its own authority (and responsibility) for the mentally ill of the Territory-become-State some progress has been made, although to date not much of this is apparent.

Although Alaska assumed responsibility on February 22, 1957, and the legislature passed the Mental Health Act on July 1, 1957, no psychiatrists were employed by Alaska between February 1, 1957 when Oscar Hubbard, M.D., departed and February 21, 1958 when J. B. K. Smith, M.D., arrived in Juneau. Thus the burden of initiating procedures under the Mental Health Act and supervising contractual agreements with hospitals in Alaska as well as with Morningside Hospital in Portland, Oregon, fell upon the Department of Health with only a skeleton crew in the Section of Mental Health. Even in the year since then the addition of two psychiatrists has so far served merely to underline the problems present.

For many years much emphasis has been placed on tuberculosis as a major problem so far as public medicine is concerned, and at present these efforts seem to be paying off. In the same period much heat has been devoted to mental health, but little light developed except for the substitution of the archaic

federal statute by the modern Alaska Mental Health Act. As severe psychiatric problems used to be regarded as legal and police, rather than medical matters, Alaskan physicians were frustrated in attempts to deal with these patients. In addition less severe psychiatric illnesses could not be adequately referred unless the patient was sent Outside, so this again has required that physicians must either do without consultation or else agree to the possibility of losing the patient entirely because of the expense and other problems involved in such referrals Outside.

It seems then that the Alaska Mental Health Authority (under the Section of Mental Health of the Alaska Department of Health) has a threefold clinical responsibility: (1) Providing hospitalization and treatment for those patients with psychoses or similarly severe mental illness or retardation; (2) Affording consultation as requested, when possible, to private patients of Alaska physicians until such time as enough psychiatrists in private practice are available for this; (3) Providing consultative services to various public agencies such as courts, schools, police, and welfare where psychiatric recommendations are needed to assist these agencies in their functions.

To provide hospitalization and treatment the Mental Health Authority contracts with Morningside Hospital and with general hospitals in Alaska for brief care of psychiatric patients. Meanwhile, plans continue for the Anchorage psychiatric center which it is hoped will be in construction in 1960 and ready to receive patients in 1961. If possible a small psychiatric unit will be developed in the Anchorage Native Health Service Hospital in 1959 to serve as an acute treatment unit and training nucleus for the staff of the larger facility.

To provide consultation services, Section of Mental Health offices are presently functioning in Juneau and Anchorage. The Juneau office has been able to provide some service to the rest of Southeast Alaska and the Anchorage personnel have been making monthly visits to Fairbanks as well as seeing patients from out of town in Anchorage when possible. It is hoped that additional psychiatrists, when recruited, will feel encouraged by the Mental Health Authority and by the medical community to enter private practice, at first part-time and later on a full-time basis. It is hoped also that larger communities such as Anchorage and Fairbanks will gradually develop local, community-backed psychiatric clinics for patients not quite indigent but unable to support full cost.

Public health and preventive medicine activities of the Mental Health Authority are outlined now, but their implementation will probably be slow because of the acute clinical needs and the national shortage of personnel (and knowledge). Public education and research are the main areas of emphasis in this aspect of the program. Statistics on mental illness are notoriously difficult to compile and compare in any area, but this is particularly true in Alaska so far as the United States is concerned. The number of patients publicly hospitalized is available but probably is relatively meaningless because of the previous difficulty with which this was accomplished

and the slowness with which knowledge of the new law's provisions are disseminated. Private psychiatric hospitalization is essentially not done at this time in Alaska, and no figures are available for those hospitalized elsewhere.

Though there are undoubtedly numerous and varying reasons for Alaska's markedly elevated mortality rate from violent causes (including suicide, homicide, accidents, and those listed as due to alcoholism), it can safely be assumed that mental and emotional disorders play a significant role in this rate. Thus it is probable that increasing possibilities of treatment, both public and private, will help reduce this rate while the programs of education and research gradually lead to earlier detection of illness as well as possible methods of prevention.

It should be recognized in all these aspects of a mental health program that organized medicine as a whole and not just the specialty of psychiatry, which is still negligible in Alaska, must assist in leadership capacity in a teamwork approach on mental illness and its close relatives—crime, juvenile delinquency, family disruption, and economic instability and depression.

Thus the Alaska Mental Health Authority, despite its infancy, its present ridiculous incapacity to handle even its most pressing problems, and the obvious roadblocks of public apathy, politics, and bureaucracy, must look upon its role in the new state as that of a catalyst in the development of a therapeutic, and ultimately an essentially healthy community.

Though we know that such statements are a bit grandiose and that significant progress in this direction may not be detectable for years or even decades, it is hoped by the time of the next progress report that some definite advances will have been made, not only in the public Mental Health Authority, but also in the medical and lay communities, toward these goals.





# WOMEN'S AUXILIARY

*A News Column Compiled by*

**MRS. VERNON CATES**

## 1958-59 OFFICERS OF THE WOMEN'S AUXILIARY TO THE ALASKA STATE MEDICAL ASSOCIATION

President—Mrs. John Clements .....Juneau  
Vice-President—Mrs. William Charteris .....Sitka

President Elect—Mrs. Francis Phillips .....Anchorage  
Secretary-Treasurer—Mrs. Harry Leer .....Juneau  
Chairman, American Medical Educational  
Foundation—Mrs. John Clements .....Juneau  
Chairman, Scholarship Committee—  
Mrs. Paul Haggland .....Fairbanks

## MILEPOSTS TO SUCCESS

— A Message to the Women's Auxiliary to the Alaska State Medical Association

Mrs. E. Arthur Underwood,  
President of the Women's Auxiliary to the American  
Medical Association

1. **We are an Auxiliary.** We cooperate with our husbands in the American Medical Association in reaching their objectives. They lead. We are the liaison. We should be the golden thread which unites us with other individuals and our organization with other forces concerned with health. If we do our part well, the relationship is good.

2. **"Getting to Know You"** applies to more than romance. Knowing the wives of other physicians is a beginning. A personal invitation should be extended to every potential member. If all participate in some aspect of Auxiliary work, in the field that fits their individual energies and abilities, two things are accomplished: Our members are active—the key to success; and we achieve unity, the key to progress.

3. **Unity Within Your Community.** Our primary objective is "to cultivate friendly relations and promote mutual understanding among physicians' families." As F. J. L. Blasingame, M.D., general manager of A.M.A., stated, "The association will need to increase its communications with its members and the auxiliary. By keeping our membership informed, we can expect to strengthen our unity and to increase our effectiveness in leadership in health matters." With the approval of your Advisory group, select for action a program which fits the needs of your community. In Alaska, where frequently there is one physician serving a vast area, he is the First Citizen. As wives of these First Citizens, you are expected to share this leadership in health education. Procedure will vary with the immediate circumstances, but the basic objective—better health for all—will remain.

4. **The Cache.** One health educator has stated that a health magazine is the most important undertaking in a program of health education. The Members at Large—the wives of physicians in remote areas peculiar to Alaska—can do great service through gift subscriptions to **Today's Health**. This reminds people twelve times a year that health is important.

Films on a wide variety of subjects related to health: safety, paramedical careers, civil defense, mental health, and many others, are available from the Auxiliary Central Office. Would you like to direct a volunteer cast? Playlets are available from your National Program Chairman. These will offer diversion on many a cold winter evening—taking part is fun—your audience may acquire a new view of you along with a few health facts—and the sharing is important.

As a visitor I greatly admired the spirit and participation in your projects by other members of the community. This is active leadership in community health.

5. **Service to your Auxiliary.** By participating in worthwhile social and community activities as a physicians wife and a member of the Auxiliary, you also serve the Auxiliary.

6. **Auxiliary Meetings.** Some of our most successful Auxiliaries meet once or twice a year, a project is selected, plans are made, and each member pursues the course in her own community. Last year you selected a film on Safety which was shown in all the schools in two areas.

7. **Top of the Totem Pole.** Last year it was my privilege to attend the meeting of the Woman's Auxiliary to the Alaska Territorial Medical Association. This year—to the Woman's Auxiliary to the Alaska State Medical Association to present a special award—the National award for the second highest per capita contribution to the American Medical Education Foundation.

8. **Summit.** "Bring me men to match my mountains" is the caption under the beautiful picture of Mt. McKinley at the Fairbanks airport. Wives of Alaskan physicians participate in so many fields of community service that we cannot mention them all. This is the golden thread of liaison—up here it's a rope—and the women match the men. Service has its own unique reward.



## PRESIDENT'S MESSAGE

Mrs. John Clements

President of the Woman's Auxiliary to the Alaska State Medical Association

Remember that the Woman's Auxiliary to the Alaska State Medical Association will meet in Juneau on March 19, 20 and 21. All doctors' wives are invited to attend.

Mrs. E. Arthur Underwood, National President of the Woman's Auxiliary to the American Medical Association, plans to be in Juneau for this meeting, and I am sure you will all enjoy the opportunity of becoming better acquainted with her.

The following tentative program has been scheduled:

### THURSDAY, MARCH 19—

Registration .....2:00 P.M.

#### BARANOF HOTEL LOUNGE

Tea by St. Ann's Hospital Guild .....3:00 P.M.

#### ST. ANN'S HOSPITAL

### FRIDAY, MARCH 20—

Luncheon at Dr. R. H. Leer's home,

Douglas highway .....12:30 P.M.

Meeting of the Woman's Auxiliary to the Alaska State Medical Association

Guest Speaker—Mrs. E. Arthur Underwood,

National President of the Women's Auxiliary to the AMERICAN MEDICAL ASSOCIATION

### COMMITTEES

Greeting: Mesdames Clements, Gibson, H, Whitehead.

Tea: Mesdames Carter, Rude, Sperry, Wilde

Arrangements: Mesdames Blanton, Gibson (J), Leer, Smith

### ALASKA MEDICAL AUXILIARY DUES

Mrs. Francis J. Phillips, President-Elect

Woman's Auxiliary to the Alaska State Medical Association

No longer can we "live alone and like it!" We are a big part of the forty-nine states. As medical auxiliary members, we can help promote the cause of better medicine in this new state by joining the Woman's Auxiliary to the Alaska State Medical Association. In joining, we automatically become members of the national, or American Medical Auxiliary, which in turn, supports the state auxiliary, supplying it with information and material such as legislative bulletins pertaining to health, film listings on civil defense, safety, mental health.

State dues are five dollars. One dollar is sent to national for each member, one dollar for the **Bulletin** (published four times a year), and three dollars stays in the state treasury to be used for Paramedical Scholarships for some future Alaska nurses, for contributions to the American Medical Educational Foundation for medical schools

(Alaska Medical Auxiliary contributed \$244.50 last year), for operational expense.

We can be active, interested members. Join your auxiliary now! Mail dues (\$5.00) to Mrs. R. Harrison Leer, secretary-treasurer, P. O. Box 2597, Juneau, Alaska, by March 15, 1959.

### AUXILIARY NEWS

ANCHORAGE: Upon the request of the Anchorage Medical Society, seventeen Physician's wives met, on March 20, 1958, for the purpose of reactivating and reorganizing the Auxiliary. Doctor Milo Fritz, representing the Anchorage Medical Society, spoke on the need for the Woman's Auxiliary and pledged the full support of the Medical Society. A nominating committee was elected and requested to present their nominees at the next meeting of the Auxiliary.

The first official meeting of the Anchorage Medical Society Auxiliary was held on April 28, 1958 and the following officers nominated and elected: President—Mrs. Vernon Cates; Vice President—Mrs. Francis Phillips; Corresponding Secretary—Mrs. James Fitzpatrick; Recording Secretary—Mrs. Lester Margetts; Treasurer—Mrs. Royce Morgan; Board Members—Mrs. C. E. Chenoweth and Mrs. Asa Martin.

The first few meetings of the Auxiliary were spent in organizational work and the drawing up of our Constitution and By-Laws. The Anchorage Medical Society Auxiliary now totals twenty-five active, paid-up members.

FAIRBANKS: The Fairbanks Auxiliary has three new members:

Mrs. Donald Tatum from Oregon City, Ore.

Mrs. Art Schiable who was married to Dr. Schiable in New York City on Christmas day.

Mrs. James Dohm from Brian, Ohio. Dr. and Mrs. Dohm came to Fairbanks following three years of service in Japan.

The major project of the local auxiliary members was a pot luck supper, profits of which were donated to A.M.E.F.

SEWARD (by Mrs. Joseph Deisher): Gladys Underwood, President of our Woman's Auxiliary to the American Medical Association suggested on the Presidents Page of the January 1959 "Bulletin" that "the real art of living is in the beginning where you are." When I read this, I realized that what is being done in the small communities of our new state is not as trivial as I had first supposed.

In Seward, a community of about 2100, there are three physicians with their families. Individual interests of these families just naturally make it possible for us wives to each contact a different group of people. Thus we each begin where she is; be it Church, P.T.A., Hospital Auxiliary, Woman's Club or



any one of 27 other local clubs; to carry out the objectives which would be officially ours if we were organized as an Auxiliary Unit.

True, this is not a formally planned activity, we don't meet often, but we all feel that by using and working through one or more of the existing organizations for the benefit of the whole community, we are most effectively serving.

As members of the P.T.A. we help the Public Health Nurse check eyes, ears, and give immunizations. As Chairman of the Cancer Unit we distribute Educational Material and guide people to agencies which can help them. In the Hospital Auxiliary we assumed responsibility for the interior decoration of our new Hospital. In the coming year, we will be available to help in many ways as the new Hospital becomes a Civic enterprise after being run by the Woman's Division of Christian Service of the Methodist Church for twenty-six years.

**SITKA:** Since the recent organization and inauguration of the Sitka-Mt. Edgecumbe Medical Association, the Sitka medical wives have discussed among themselves and reached an almost unanimous conclusion that the time has arrived for formation of a local Auxiliary. A cohesive group even as small as this one will necessarily be, should be able on occasion to initiate and follow through projects and aims which inevitably fall by the wayside when we plod along as the busy preoccupied individuals all of us seem to be. So—the Sitka gals are open and receptive for prods, suggestions, instructions, directions and what have you.

### CHIT - CHAT

**Anchorage**—Mrs. William Caughran and Mrs. William Rader were hostesses at a tea honoring Mrs. Calvin Johnson on January 27. Dr. and Mrs. Johnson were married here recently.

**Cordova**—Although they miss their Alaskan friends, Dr. and Mrs. Raymond Coffin are happy with their home and new office in Mukilteo, Washington. Dr. Coffin was replaced by Dr. Joseph Tedesco in Cordova.

**Fairbanks**—Dr. and Mrs. Joe Ribar recently spent some time in Tacoma, where they helped Dr. Ribar's parents celebrate their golden wedding.

Mrs. Joe Ribar has been elected president of the Fairbanks Hospital Auxiliary.

All of Fairbanks was saddened by the death of Mrs. Huge Fate's father, Mr. Thomas Quirk. The Quirk's were pioneers of the area.

Dr. and Mrs. Henry Storrs were parents of a new son born on April 26.

Mrs. Lawrence Dunlap had a vacation in October when she flew to San Bernadino to visit her parents.

A daughter was born to Dr. and Mrs. James Lundquist on September 14.

The Haggland twins spent the holiday college vacation at home with their parents.

Mrs. John Weston is busy as president of the Farthest North Girl Scout Council.

Dr. and Mrs. Kenneth Kaisch spent their holiday at Chena Hot Spring. Recently much of their time has been taken up curling.

**Kodiak**—Dr. and Mrs. Al Holmes Johnson, residents of Kodiak for twenty years, left Kodiak in September, 1958 for a world wide vacation. They left Los Angeles on a Holland freighter bound for Cape-town, South Africa. They stayed with Dr. Johnson's sister for a month in Capetown. They are now motor-ing through Africa, and plan to sail from Mombasa, (Kenya) on an Italian liner on February 11, for Venice, Italy. After several months touring Europe, Dr. and Mrs. Johnson will return to Kodiak.

Dr. and Mrs. J. Bruce Keers from Brooklyn, New York joined the Holmes Johnson Clinic in June, 1958. The Keers are ardent skiers, skaters, sailors and lovers of seafood.

Dr. and Mrs. Bob Johnson recently purchased skin diving gear. They are thoroughly enjoying their swims in the Pacific and are most anxious to become more familiar with this sport.

**Palmer**—Dr. and Mrs. Vincent Hume and family are in good health following an experience they will never forget. While driving across a local lake, the ice broke and their car plunged into the water. Fortunately the family of seven including a small baby reached safety before the car went to the bottom.

**Seldovia**—Dr. and Mrs. Russell Jackson are busy building their home in Seldovia. At the same time Dr. Jackson is enjoying practice there and he and his sons take advantage of the excellent hunting and fishing opportunities in the area.

**Sitka**—Mrs. Phil (Mildred) Moore has maintained a full-time job as Dr. Phil's office nurse ever since he opened his Orthopedic clinic in Sitka. In the past year, Dr. T. M. Moore (no relation), has joined Dr. Phil, making the Moore Clinic **really** the Moore Clinic, so that one nowadays speaks of Dr. Phil or Dr. T. M. instead of Dr. Moore. Dr. T. M.'s wife Shirley will soon be an active auxiliary member. She is the mother of a four-year-old and a two-year-old, and still finds time and energy to put in considerable time doing secretarial work for the clinic. The new Moores have come to Sitka from St. Louis.

Mrs. William (Sue) Charteris is the envy of all at the moment. Shortly after Christmas she flew to Miami, Florida where her sister and brother-in-law Kathryn and Stockton Webb are readying their new sailing ketch, **Sea Otter**, for the leisurely return to

Sitka. Ot last reports they were about to head for the Bahamas and some shakedown sailing.

In July of 1958 Barbara Shuler, daughter of Dr. Bob and Loel Shuler, underwent successful surgery for a patent ductus at Virginia Mason Hospital in Seattle. Her subsequent robust health and vigor are truly rewarding.

The Sitka Community Hospital Auxiliary, a most valuable service organization, was formed dur-

ing the year and has, of course, created a spot for the special abilities and concerns of physician's wives to be effectively utilized. Probably the great benefit of the Hospital Auxiliary is its position as liaison between the hospital and the multitudinous local service clubs, and channeling the community willingness to assist with hospital needs toward maximum benefit and efficiency.

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# MUKTUK MORSELS

*A Column Devoted to Medical News in Alaska Compiled by*

**HELEN WHALEY, M.D.**

## GENERAL

Statehood has caused a tremendous surge of interest in the practice of Medicine in Alaska. Articles have appeared in such diversified publications as the New England Journal of Medicine, which presented an editorial on Alaska's health for the past ten years based on Metropolitan Life Insurance statistics, Medical Economics which gave a fairly complete survey of the coverage and opportunities for practice in Alaska,, Scope Newspaper which had a pictorial review of Dr. Milo Fritz and Dr. Rambo of New York City surveying the ENT problems among the Alaskan natives, and more recently Time magazine which gave a detailed report of the method of diagnosis and treatment via radio used by Doctor William Brownlee and Doctor Jean Persons of the Public Health Service at Bethel.

## MEETINGS

There have been several interesting post-graduate sessions including the Lederle Laboratory Seminar in Anchorage February 21, 1959. This included a review of laboratory and office procedures and office treatment by James B. Donaldson, M.D., Associate Professor of Medicine, Hahnemann Medical College, Philadelphia, Pennsylvania; a ten year review of broad-spectrum antibiotics therapy by Vernon Knight, M.D., Associate Professor of Medicine, Vanderbilt University School of Medicine, Nashville, Tennessee; and a discussion of abdominal emergencies by Edward J. Beattie, Jr., M.D., Professor of Surgery, University of Illinois College of Medicine. Afternoon round-table

discussions were moderated by Dr. Michael F. Beirne, pathologist at Providence Hospital; Dr. William J. Rader, Spenard; and Dr. Lester H. Margetts, president of the Medical Staff at Providence Hospital, Anchorage.

In September 1958, through the joint cooperation of the Alaska Heart Association and the Alaska Department of Health, cardiac clinics were held in Anchorage, and at Mt. Edgecumbe, Sitka, with Doctor Frank Gerbode, Professor of Thoracic Surgery; Doctor Herbert Hultgren, Associate Professor of Medicine; and Doctor Sarah Hochstetler, Assistant Professor of Radiology, all of Stanford University, San Francisco, California. Approximately one hundred patients of all ages with congenital and acquired heart disease were evaluated. The clinics were held at the USPHS Hospitals.

## NEW POISON CONTROL CENTERS

Because of the increase in poison ingestion both in the larger communities and in the more remote bush areas, a need for central poison control centers became obvious this past year. Currently a center is being established at the Northward Drug Store in Fairbanks, Alaska and in the out-patient department at the Anchorage USPHS Hospital. Such centers have been established in the other states, because of the growing number and complexity of potentially poisonous ingredients in many manufactured products, most of which are difficult to trace readily. The central Poison Control Center in Washington, D. C., a branch of the USPHS, supplies these centers monthly



with a current list of new products. Telephone consultations are welcomed. Dr. Gloria Park has helped organize the Anchorage Center and Mark Fenton, Ann Berrigan, and Mel Allen, the Fairbanks Center. This provides a much needed service for all Alaskan physicians and represents a significant advance in medical care facilities.

### LOCAL NEWS

**FAIRBANKS**—Doctor Elliot Coles, a 1949 graduate of John Hopkins Medical School, recently completed a residency in Hines, Illinois at the Veterans Administration Hospital. An orthopedist, he has joined the Doctor's Clinic. Dr. Donald E. Tatum of Oregon City, Oregon, an internist, and a graduate of the University of Oregon Medical School, has joined the Fairbanks Clinic and is serving as regional consultant to the Alaska Department of Health for the Chronic Disease of Children Program. A new girl was added to the Dr. James Lundquist family in October 1958. Dr. Paul Haggland became a Fellow of the American College of Surgeons. A recent wedding was that of Dr. Arthur J. Schaible and Miss Grace Bergh, a graduate of the Yale University Law School. They plan to fly over the Pole and to visit South Africa in the near future. Dr. John Weston is president of the Medical Society and recently attended a meeting in Sun Valley, Idaho. Two other new physicians are Dr. George Cloutier at the Doctor's Clinic and Dr. Dohm with the Fairbanks Clinic. These men are both generalists.

**FORT YUKON**—Dr. W. Burns Jones, Jr., continues to hold large and active out-patient clinics for the residents despite the closing of the Fort Yukon hospital, which was sponsored by the Episcopal Church.

**BETHEL**—Dr. Jean Persons, now Mrs. Ben Smit, formerly medical officer in charge of the Tanana hospital and prior to coming to Bethel, Chief of Pediatrics at the Anchorage USPHS Hospital, had a five pound seven ounce girl in January 1959. The Bethel area will have its first private practice physician when Dr. Harriet Jackson returns this summer. At the present time she is working with the Alaska Department of Health on an EENT demonstration project, surveying native villages between Bethel and McGrath. She was formerly the medical officer in charge of the Bethel USPHS Hospital.

**NOME**—For the past year Dr. William Woodcock, formerly of Hot Springs National Park Arkansas, and a general surgeon, has served as physician at the Maynard McDougal Memorial Hospital in Nome. He spent a brief visit with his family in Arkansas during the Christmas Season.

**DILLINGHAM**—Dr. George Wagon, medical officer in charge of the USPHS Hospital, recently returned from a visit to the States. He flew his Stinson Station Wagon to Anchorage for repairs. Dr. John Libby, recently of Goldendale, Washington, plans to enter private practice in the near future. He is a graduate of the College of Medical Evangelists, Los Angeles, California, and formerly served as medical officer for the Alaska Native Service. He flies a Cessna 180.

**GLENALLEN**—Dr. James S. Pinneo returned to the Faith Hospital in Glenallen to join Dr. Chester L. Schneider after a year's leave of absence during which he took advanced residency training in Pennsylvania.

**KENAI**—Dr. Marion G. Goble, formerly of Kodiak, is a 1954 graduate of the State University of New York, College of Medicine, Brooklyn, New York. Dr. Goble was the first private physician to settle in the Kenai and Soldotna area, where she entered practice in the summer of 1958.

**KODIAK**—Dr. Bruce J. Keers, formerly of the U. S. Air Force and a graduate of the 1954 class of the State of New York Medical College, Brooklyn, joined the Holmes Johnson Clinic during the past year.

**PALMER**—Dr. Vincent Hume, who formerly practiced in Anchorage, moved to Palmer in August 1959. During the coming year Dr. Arthur J. Colberg's daughter Carol plans to enter the University of Washington Medical School. She is one of the two pre-medical students presently at the University of Alaska.

**ANCHORAGE**—Following a year's post-graduate work at the Palo Alto Clinic in California, Dr. Howard G. Romig has returned to the practice of obstetrics and gynecology. Dr. Merritt Starr, who has been on an extended tour around the world, recently returned from Europe and supposedly is now enroute to Mexico. Dr. Nancy Sydnam had her second child, a five pound, 9 ounce boy born prematurely and inadvertently at the Virginia Mason Clinic in Seattle during the course of a Christmas visit to her parents. Dr. Lester Margetts, a surgeon with the Doctors' Clinic, was recently elected Chief of Staff of Providence Hospital, and Dr. William J. Mills, Jr., was elected President of the Anchorage Medical Society. Dr. William Rader, brother of one of our State Representatives and an associate of Dr. William Caughran and Dr. Calvin Johnson of the Spenard Clinic, plans to leave for Cincinnati, Ohio in the summer of 1959 for a psychiatric residency.

**SEWARD**—Dr. Norman D. Hall, in practice for many years, has left the community to return to Washington. Dr. Joseph B. Deisher, attended a meeting in Chicago in October 1958 on Hypnosis and its

use in medicine. He has used this method with encouraging results in obstetrics.

Dr. Ernest W. Gentles is dividing his time between the Alaska Department of Health, Tuberculosis Division in Anchorage during the absence of Dr. Robert Gardiner; the Seward Sanitarium; and private practice in Seward.

CORDOVA has a new physician, Dr. Joseph A. Tedesco, who took over from Dr. Coffin who had practiced in that area for many years. Dr. Coffin has returned to Mukilteo, Washington.

JUNEAU—Henry Wilde, an internist has joined the Juneau Clinic. He attended high school in Juneau and served as a medical resident in Edmonton, Canada, where he gained considerable experience in cardiac catheterization and cardiology. He is serving as a consultant to the Chronic Disease of Children program at present. Dr. John Clements of the Doctors' Clinic is President of the Juneau Medical Society. Dr. Donald Rude is obtaining further residency training. The Juneau USPHS Hospital has been closed. Native Service beneficiary patients are now hospitalized at St. Ann's, where Dr. George Sperry, USPHS, continues to offer them care. The basement of St. Ann's has been renovated as an out-patient department. Drs.

C. Carter and William Blanton had a successful deer hunting trip in the Yakutat area last fall.

SITKA—In the Sitka area, there are several new physicians, including Dr. Tillman Moore, Jr., who is associated with Dr. Phillip Moore. He is a graduate of Washington University School of Medicine and recently completed a residency at Barnes Hospital, St. Louis. Dr. David Sparling of the Alaska Department of Health and the Alaska Native Health Service at Mt. Edgecumbe attended the American Academy of Pediatrics Meeting in Chicago in October. He recently became a member of this group and attended several special sessions on crippled children's programs.

KETCHIKAN—Dr. A. N. Wilson's son Jim is in his last year of surgical residency at St. Vincent's Hospital in Portland, Oregon and Arthur, Jr. is presently interning at the Virginia Mason Clinic and plans to continue in anesthesia. Dr. John Stewart, who formerly practiced in the Anchorage area with the Anchorage Clinic, and later in Juneau, recently returned from Santa Barbara, California to establish a practice in Ketchikan. He is particularly interested in chest surgery. Dr. W. Turner, a graduate of the Baylor University Medical School in Houston, Texas is also a relative newcomer to the Ketchikan area.





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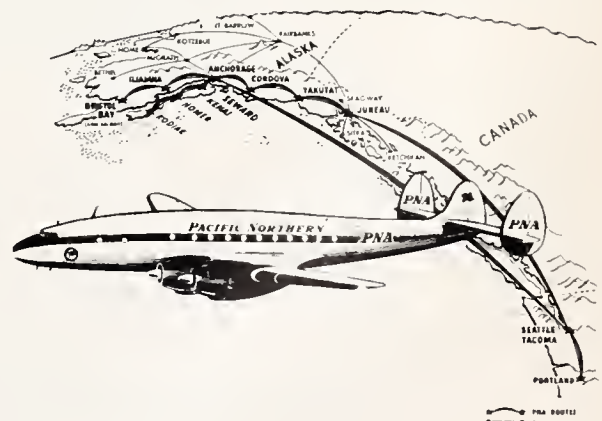
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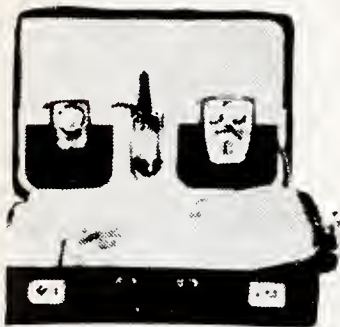
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# BRUCELLA SUIIS IN THE ARCTIC

*S T A N E D W A R D S , M. D.*  
*USPHS ALASKA NATIVE HOSPITAL*  
*ANCHORAGE*

Brucellosis has been termed by some authors the most important human illness among the group of diseases transmitted by animals. The case in point occurred in a young Eskimo woman whose home is on the Arctic Ocean in the northernmost inhabited village on the North American continent. Up to this time, brucellosis has never been considered a problem in Alaska but with an infection proven by culture that was most surely acquired in our state, coupled with the recent great influx of people from areas in which the disease is endemic, brucellosis should be considered in the differential diagnosis of prolonged acute febrile illnesses.

**CASE REPORT:** This 19-year old Eskimo female was in good health until August 17, 1958, when she developed fever, malaise and anorexia. This was followed by vomiting which continued for five days, and diarrhea consisting of ten to twenty loose, watery, greenish stools daily for one week. Following spontaneous cessation of her diarrhea, she tended to be constipated. She was admitted to the U.S.P.H.S. Alaska Native Hospital in Barrow, Alaska, on August 28, 1958, complaining of mild lower abdominal pain, headache and continued malaise and anorexia. Her temperature was 101.8 degrees F., pulse 96, and physical examination was entirely within normal limits. She remained in the hospital for six days and her temperature ranged between 100 and 102 degrees. Her only complaint during this time was anorexia and mild frontal headaches.

**SUMMARY OF LABORATORY AND X-RAY EXAMINATIONS:** W. B. C. 8,430; urinalysis normal; stool was negative for blood. Chest x-rays were negative.

She was transferred to the USPHS Alaska Native Hospital in Anchorage, Alaska on September 3, 1958. Physical examination on admission revealed: blood pressure 112/70; pulse 112; and temperature 100.8 degrees F., with the remainder of the examination being completely within normal limits.

Laboratory examinations on admission: Hem-



oglobin of 12.7 gms. %; hematocrit 35 volumes per cent; sedimentation rate 24 mms. per hour, Wintrobe; W. B. C. 6,850 cu. mm. with a relative lymphocytosis. Urine specimen culture grew out *E. coli* and *Aerobacter aerogenes*. Throat culture grew out a rare colony of beta streptococcus. Heterophile agglutination was negative. Chest x-ray was negative.

**HOSPITAL COURSE:** Throughout her hospitalization, she had no complaints except for mild headaches. Her temperature chart showed an undulating type curve with spikes to 105° F. during the first week and 101 to 103 degrees during the next three weeks. Febrile agglutinations were obtained and the *Brucella abortus* titer was 1:320, *Bacterium tularensis* 1:20, and typhoid, paratyphoid and proteus were all negative. One week later the *Brucella abortus* titer had risen to 1:640; two weeks later to 1:2000; and three weeks later to 1:8000. Three weeks following admission two blood cultures and a bone marrow culture grew out a gram negative organism. As it was not possible to definitely identify this organism in our laboratory, it was sent to the Microbiology Diagnostic Unit at the Communicable Disease Center in Chamblee, Georgia, and subsequently to Michigan State University, where Dr. I. Forrest Huddleson identified it as a Thomsen type of *Brucella suis*.



Treatment was not begun until six weeks after the onset of her illness and then she received two gms. of chloramphenicol orally, daily for three weeks. Five days after the onset of treatment she was afebrile and for the first time began gaining strength. A six-month follow-up showed her to be quite active and still with no evidence of relapse with her *Brucella abortus* titer being 1:320.

**EPIDEMIOLOGY:** To our knowledge, this was the first known case of brucellosis documented by recovery of the organism by culture from a native of Alaska. It was imperative that an attempt be made to discover the source of the causative organism. This was done by going to Barrow, Alaska, accompanied by Dr. Robert N. Phillip of the Arctic Health Research Center and tracing back the activities of the patient for the three months prior to her illness, as well as familiarizing ourselves with the habits of the people in this area and of the animal population. The only event that seemed pertinent was that the patient and six other people in the area had gone on a seal hunt three weeks prior to her illness, covering a journey of approximately sixty miles from Barrow. While on this hunt a caribou was shot, and as is the custom of natives following a fresh kill of a caribou, three of the group ate the raw bone marrow from the animal. Although the meat was consumed by all members of the hunting party only these three shared in the delicacy of the raw bone marrow.

While in Barrow, we obtained samples on 480 people above the age of 6, and these were run for *Brucella* agglutinations by the Epidemiology Section of the Arctic Health Research Center, under the direction of Dr. Karl Reinhard. Of these samples, only one, other than the patient, showed a significantly high titer. This was in an 18-year old boy who also was one of the three people who shared in eating the bone marrow of the afore-mentioned caribou. His titer was 1:8000. The third individual who had shared in eating the caribou marrow was a 50-year old man who had an episode of broncho-pneumonia three months after this hunt and the causative organism was not ascertained. He responded quite well to penicillin and was discharged after seven days. His *Brucella abortus* titer was negative.

This single caribou was the only freshly

killed animal the patient came in contact with and the only close association with any animal other than dogs in the village. Due to the location of Barrow, fresh dairy products are virtually unobtainable by the native population. Milk consumption is dried milk or canned concentrate.

It is interesting to note that the Thomsen variety of *Brucella suis*, which was cultured from this patient, is predominantly found in the European hare throughout central Europe and Russia. The patient could recall no contact with any type of rabbit in the past.

The only conclusion which can be drawn is that human brucellosis probably is not endemic in the area studied. No conclusion can be reached on the source of the active infection in the described patient. However, the idea of the caribou is quite intriguing as it seems reasonable that bone marrow would be an excellent reservoir site for harboring the organism. In the past six years two case reports of brucellosis in the Canadian Arctic have appeared in the literature and one suggests the possibility of the caribou being the vector (2) (8).

**COMMENT:** The predominant symptoms of an acute active *Brucella* infection are fever, sweats, weakness and generalized pains (9). These are also seen with monotonous regularity in numerous pyogenic and viral infections. The strikingly significant lack of positive physical findings in brucellosis is of little aid in making the diagnosis. The usual routine laboratory procedures add very little as the white count is usually within normal limits with a relative lymphocytosis.

The most important procedure in the diagnosis of brucellosis is recovery of the organism in culture. All too often it would be quite difficult to obtain the organism by culture if brucellosis were not considered in the differential diagnosis prior to obtaining the cultures. This is true as no media has yet been devised which permits the *Brucella* organism to grow as rapidly as the common pyogenic organisms. There are, however, available commercially several excellent media for culturing the *Brucella* organism and these should be used in conjunction with other standard media if the diagnosis of brucellosis is suspected.

In the absence of a positive culture, the agglutination test becomes extremely valuable. In



cases of active brucellosis, ninety per cent of the patients can be expected to have a titer exceeding 1:320 (5). As the disease is so insidious in its onset and tends to run a prolonged course; a rising titer need not be demonstrated to add strong suspicion of the diagnosis as the patient may have not come for his initial examination until many weeks following the contact with the causative organism. High agglutination titers have been found in individuals without infections who have been subjected to *Brucella* skin test, and this is one reason most people believe the skin test has no place in the diagnosis of brucellosis. High false positive agglutination titers for *Brucella* have been reported in individuals having received immunizations for cholera vibrio (6). A similar antigenic relationship exists with *Pasturella tularensis*.

Good evidence has been presented that the basic lesion of an invading *Brucella* organism is the granuloma, and that one favored site of localization is the reticulo-endothelial system. These granulomas undergo caseation necrosis similar to those caused by mycobacterium tuberculosis (4). One group (3) found that in chronic granulomatous lesions of the urinary tract, bones, joints, bursas, lymph nodes, prostate, epididymis, and Fallopian tubes, that despite a histological diagnosis of tuberculosis, acid fast bacilli could be cultured in only fifty-five per cent; the remainder of the lesions being caused by *Brucella*, various fungi or *Salmonella typhosa* (11).

The similarity of granulomatous lesions caused by brucellosis and tuberculosis are quite striking. *Brucella suis* has been isolated from well defined pulmonary nodules from which the diagnosis was made only by recovery of the organism from culture of the granuloma, as they could not be distinguished clinically, radiographically or histologically from granulomas caused by tuberculosis and various fungus diseases (12). These pulmonary nodules also present the same problem as any pulmonary coin lesion, as only following surgical resection can they be distinguished from bronchogenic carcinoma.

Pyelonephritis caused by brucellosis is clinically and histologically indistinguishable from renal tuberculosis, with both giving rise to nephrocalcinosis (1), pyuria and sterile urine when cultures are performed without regard for the special requirements of the etiologic organisms.

Lymph nodes which have been removed for presumptive diagnosis of tuberculosis and histologically have shown caseation necrosis have in many instances with proper culturing of the tissue led to the diagnosis of brucellosis. The liver and spleen have also been reported to be focal sites of *Brucella* granulomas and an area of caseation in the spleen will often undergo laminated calcification such as is found in tuberculosis (3).

The most common localized infection produced by all three species of *Brucella* is spondylitis. The involvement of one intervertebral disc and the two adjoining vertebral bodies is the usual picture. In brucellosis of the spine there is a marked tendency toward formation of new bone in the area of osteomyelitis. This discovery radiographically is important in differentiating *Brucella* spondylitis from tuberculous spondylitis, which shows little if any evidence of healing (5) (7).

In the state of Alaska where the problem of tuberculosis has been so prominent, it is probable that all too often granulomatous lesions are falsely diagnosed as tuberculosis and further investigation of these lesions is warranted.

**TREATMENT:** Fortunately most patients with brucellosis recover in less than a year, but due to the profound weakness, return to work is sometimes delayed for several months (9). Also, as fortunate as the spontaneous remission, are the results of antibiotic therapy in human brucellosis. Tetracycline, streptomycin, chloramphenicol (13) and the sulfonamides have proven effective in the treatment of clinical brucellosis. The relapse rate within one month following tetracycline therapy is thirty to sixty per cent (5).

At the last meeting of the Council on Brucellosis of the World Health Organization, they recommended that all infections due to *Brucella suis* should receive a combination of tetracycline and streptomycin or dihydrostreptomycin with or without the addition of sulfonamides for a minimum of twenty-one days (13).

Symptomatic improvement with ACTH has been reported in the absence of covering antibiotic therapy and was followed by complete recovery of the patient. Probably one of the primary reasons for administering ACTH or cortisone in the severely ill patient is that the steroids tend to greatly decrease the time of febrile re-

actions (10). Certainly, at the present time antibiotic therapy should always be given if ACTH or cortisone is administered to the patient with brucellosis.

### SUMMARY:

1. A case of acute active brucellosis caused by *Brucella suis* in a young Eskimo woman is presented. This patient up to the time of her hospitalization in Anchorage, had spent her entire life within a 120 mile radius of Barrow which borders the Arctic Ocean.

2. No definite conclusions could be drawn as to the source of the *Brucella* infection in this patient. However, the marrow of a freshly killed caribou was strongly suspected as the source.

3. Some of the procedures for diagnosing Brucellosis are discussed.

4. A few points on the similarity of brucellosis and tuberculosis are discussed. It is suggested that brucellosis be considered in the differential diagnosis, especially of extra-pulmonary lesions, which are diagnosed as tuberculosis but do not completely fulfill the diagnostic criteria.

5. A short discussion on the treatment of brucellosis is presented.

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# POSTGRADUATE STUDY IN EUROPE

*JAMES E. O'MALLEY, M.D.*

ANCHORAGE

Last fall my wife, Dr. Virginia L. Wright, and I journeyed to Vienna for some short courses in medicine. We went by taxi directly from the railroad station to the offices of the American Medical Society of Vienna and within a short space of half an hour we had been installed in lodgings, and letters of introduction to the clinics which we wished to attend were made available to us.

For many years the city of Vienna has enjoyed an excellent reputation as a medical center. I have been told that there are 32,000 hospital beds in the city of Vienna itself and inasmuch as medicine is thoroughly and completely socialized, most of the patients in Viennese hospitals are available for teaching purposes. In addition, most of the clinics have large and busy out-patient services, which are overflowing with excellent clinical material.

The American Medical Society of Vienna, an organization which was organized many years ago for the purpose of putting American physicians in touch with sources of postgraduate work at the University of Vienna, is the principal means of obtaining access to the unlimited supply of clinical material that exists in the city. This Medical Society is located in the center of the city and consists of a large reading room, a library and some business offices. It is essentially a home away from home for all of the American physicians. Dr. Arthur Kline, an American, who has resided in Vienna for many years and who is entirely familiar with the entire medical set up, as well as the possibilities for other activities, is the Executive Secretary. The office is managed by a most competent and knowledgeable person, Frau Engel, who is known as Angel to all of her friends. She concerns herself with every physician's problems who comes to the Society and goes out of her way to make an individual's stay in Vienna not only pleasant, but profitable from an educational stand point. She



has at her finger tips the names of most of the professors and instructors in the entire city, as well as the possibilities that exist for postgraduate education at their various clinics. In addition, she is a mine of information, not only on sight seeing, means of transportation about the city on its various buses and tram lines but also on all of the entertainment possibilities. She knows the name, location and specialty of any restaurant in Vienna that you care to name. Austria is regarded as one of the cheaper countries in Europe to visit today. I can speak from personal experience in this matter and can assure anyone that the prices in Austria are most reasonable and that a dollar will go considerably further than it will anywhere else in Europe.

I was fortunate enough to elect to study in the skin clinics of Professor Johan Tappeiner, in the Allgemeines Krankenhaus. Professor Tappeiner's day at the University begins at 7:15 in the morning, when accompanied by his assistants, he makes grand rounds over the entire Department of Dermatology. Dr. Tappeiner speaks excellent English and takes it upon himself to make the visiting physicians feel welcome and takes great pains to see that the visitors are giv-

en every opportunity to see and observe and ask questions about anything that pertains to the patients in the section. It was a great pleasure to go about the skin wards with the professor in the lead discussing the various cases in rapid order. In this section of the hospital there were approximately 200 patients with various skin conditions that required hospitalization. When visiting these wards every morning, it was most pleasant to see the progress of the patients with their various disorders.

I was amazed to see in the Children's Section of the hospital where the burn cases are treated by the dermatologist, that there would be cases of impetigo on the same ward. I questioned the Professor about the possibility of cross infections, to which he replied that in Austria cross infections with staphylococcus organisms did not occur particularly frequently. The reason he stated that this did not happen was that the use of antibiotics, particularly penicillin has been restricted to all but the more serious cases, and for that reason, resistant strains of staphylococcus did not emerge and cause the unpleasant complications that we are now experiencing in the United States in our hospitals.

Following the general rounds through the hospital, the rest of the time can be spent in the out-patient clinics. Here they had great quantities of radium, which they are using for a number of purposes and I had the opportunity to see the end results of radium treatments of various malignancies of the skin as well as birth marks. The cases were well documented and contained photographs and other data that went back as far as 25 years on some of the follow-up cases. The out-patient clinics which were conducted in the same building were most stimulating. It was most pleasant to be allowed to sit at the side of

the Professor and see him rapidly examine the material and make his diagnosis and turn to his assistant and order the proper medications for the patient. In addition he had other associates about him who took care of emergent laboratory work, as well as the injections. For myself, I was quite flattered on a number of occasions when the Professor would ask me what I thought the condition was before he made his own diagnosis.

At 11 o'clock each day the Professor would lecture to the students of the University of Vienna, accompanied by new and unusual cases, as well as slides and pictures of disease entities which affect the skin. This lecture was given in German, but the Professor assured me that he would be only too happy to speak slowly, so that I could understand his dissertation. One of the reasons I elected to study skin diseases was that I felt with the lesions being quite obvious in most cases that I would have little difficulty in appreciating the entire clinical picture, whether I could understand everything that was spoken or not.

My wife and I came away from Vienna greatly satisfied with the type of instruction that was provided for us and were continually impressed by the great variety of cases that we saw there. We were also most flattered by the many courtesies and kindnesses which were shown to us by the instructors and their staffs.

I am firmly convinced that if any physician who is looking for a change of scenery, change of pace and the opportunity to see some of the best diagnosticians in Europe in action, would go to Vienna and register for postgraduate courses there, he would find that it will fulfill every need that he might have together with providing him with a most pleasant vacation. ●



# PROCHLORPERAZINE AS A CAUSE OF BIZARRE EXTRAPYRAMIDAL REACTIONS IN CHILDREN

*HELEN S. WHALEY, M.D.*

ANCHORAGE

The tranquilizing drugs have had increasingly wider use, and in 1957 total sales in the United States amounted to \$195,000,000. They have been extensively used in the pediatric age group for the alleviation of the nausea, vomiting, hyperactivity, and pain associated with many childhood illnesses and have also served as pre-anesthetic medications and behavior modifiers. There are many reports of toxic effects from all of these agents. With the phenothiazine derivatives, the most alarming reactions have been extrapyramidal manifestations and bizarre seizures. The patients described here were all receiving prochlorperazine (Compazine), but similar reports have appeared regarding chlorpromazine (Thorazine), perphenazine (Trilafon); and promethazine hydrochloride (Phenergan).

## CASE REPORTS

**Case No. 1:** D. S., a 27 pound, 3½-year-old white female was placed on prochlorperazine (Compazine) because of severe asthma aggravated by emotional upsets. Approximately 1 hour after the initial dose of a 15 milligram Spansule, her family physician was consulted because of the sudden onset of hyperextension of her neck with marked, painful, peculiar contractions of the trapezius muscles. There were some associated severe spasms of the upper extremities and facial musculature. The child was afebrile, fully conscious, and did not appear otherwise ill. Compazine was discontinued and no further therapy was instituted. Within two hours the child appeared completely normal. A week later a trial with a 10 milligram Compazine Spansule each morning was begun. The child tolerated this dosage with marked relief of her anxiety and her asthma. She has had no further spasms after several months intermittent therapy.

**Case No. 2:** J. S., a 6-months-old part native child, weighing 13½ pounds, was admitted to the Alaska Native Service, U. S. Public Health Service Hospital in Anchorage on 3/29/59. The



child had had diarrhea and vomiting of three days duration and had received a total of 10 milligrams of liquid Compazine two days before admission, 5 milligrams the day before, and 2.5 milligrams the day of admission. The admission diagnosis was suspected meningitis because of the marked opisthotonos of the neck and back, and repeated extensor spasms of the lower extremities. He was afebrile and only slightly dehydrated as the vomiting and diarrhea had almost subsided. The child appeared conscious and responded to painful stimuli with increased rigid hyperextension of his legs.

Laboratory studies revealed a normal lumbar puncture with a normal pressure, and a white blood count of 8,500 with an essentially normal differential.

The possibility of Compazine toxicity was considered and no therapy except the forcing of clear liquids was instituted. Fortunately the child did not have severe spasms of the face and mouth musculature and was able to swallow, although this has been reported as a serious problem in other cases. Twelve hours after admission, there was no residual stiffness nor spasm, and as his diarrhea and vomiting had subsided, he was dis-

charged home. There has been no apparent residual neurological complications and the child is developing normally.

**Case No. 3:** R. B., a 4½-year-old 35 pound white male was admitted to Providence Hospital in September, 1958 with a rectal temperature of 99.6. He had had vomiting of three days duration and had received liquid Compazine, 5 milligrams, approximately every 4 to 6 hours for a total of about 20 milligrams daily, the two days before admission. He had received a further 10 milligrams the day of admission. That evening he had suddenly developed an intense spasm of the neck muscles with the head being deviated violently to the left, and there were frequently recurring extensor spasms of the upper and lower extremities, predominantly on the left. He had associated trismus with a peculiar intermittent protrusion of the tongue and an inconstant nystagmus. The child was well oriented but quite frightened.

Laboratory studies were completely normal and included a white count of 6,500 with a normal differential. No lumbar puncture was done.

He received no specific therapy except for the forcing of clear liquids. Within 12 hours there was no residual. However, for the first 6 hours after admission muscle spasms could be provoked by any manipulation.

**Case No. 5:** A 5-year-old Eskimo male, with bronchopneumonia, was admitted to the Point Barrow U. S. Public Health Service Hospital in April, 1959. He received 5 milligrams of i. m. Compazine every 4 hours daily for a period of three days, at which time he developed marked anorexia, listlessness, and a fixed stare with some neck spasm. A lumbar puncture was performed, which was negative. Compazine was discontinued and within twelve hours the boy appeared normal except for his residual pneumonia.

### DISCUSSION

As these cases illustrate, the extrapyramidal manifestations induced by prochlorperazine may occur with relatively small doses. The reactions seen in our patients were relatively mild, but in other reported cases, side effects have been severe enough to consider using respirators and performing tracheotomies. The pharmaceutical manufacturers caution about the occurrence of undesirable reactions from less than maximum

dosage and are recommending that therapy should be instituted with minimal amounts, cautiously increased, and promptly discontinued at the appearance of side reactions. Kemadrin (procyclidine hydrochloride) and Cogentine (benzotropine methane sulfonate), both anti-parkinsonism drugs, have been used with equivocal results; they appear to require a period of hours to relieve the symptoms. Caffeine has also been reported to control the severe reactions, although the mechanism is not understood. Barbiturates, such as pentobarbital sodium, have been somewhat successful as sleep seems to relieve the spasm and rigidity. These measures should be reserved for the severe reactions, where there is a possibility of respiratory distress or fracture due to the extreme muscle spasm. Certainly for milder reactions discontinuance of the drug suffices. The exact duration of an uninterrupted drug induced extrapyramidal reaction is variable, and is related to the exact time required for the excretion of the prochlorperazine.

### CONCLUSION

The phenothiazine tranquilizing drugs, particularly prochlorperazine, should be used for symptomatic treatment, only with the realization of the potential toxic effects, even with small dosage, particularly in childhood. Parents who are using these drugs as therapeutic agents for their children or for themselves should be fully warned of the hazards.

### ACKNOWLEDGMENT

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# THE OPEN FRACTURE—INITIAL TREATMENT AND THE EVOLUTION OF PRESENT DAY MANAGEMENT

WILLIAM J. MILLS, Jr., M.D.

ANCHORAGE

The treatment of open fractures has been discussed in medical journals for many decades. The experience gained in war has added to our knowledge of fracture therapy. Unfortunately, this knowledge is all too soon forgotten and too often assumed to be in the province of specialists in traumatology. Initial therapy may await no transfer to specialists, particularly in Alaska. The burden of care may be forced upon the lone practitioner in an outlying area because of weather or lack of immediate air, sea, or ground transport. Proper treatment must be carried out within a few hours after injury.

The 'modern' concept of treatment is not modern. Results over many years have been reported as excellent, good, fair, and poor, with both old and modern management. Unfortunately, physicians are not born with crania well stuffed with medical art and science. All must learn from the past experience of those preceding them. Failure to do so will demonstrate itself in the surgical result, regardless of the century in which we practice. Prior eras developed the concept of treatment used today, and historically in the following manner.

During the Revolutionary War era,<sup>1</sup> the open fracture was an indication for primary or secondary amputation. Then, in 1867, Lister<sup>2</sup> proposed his antiseptic theory, and defined for posterity the problem of initial management. His statement is worthy of repetition "... In the compound fracture there is an irregular wound, **probably exposed to the air for hours before it is seen by the surgeon and therefore contains within its interstices, the atmospheric germs which are the cause of decomposition,** and these must be destroyed by the energetic application of the antiseptic agent."

Von Volkmann<sup>3</sup> in 1877 improved the concept by initiating the practice of debridement, advising the excision of tissues threatening necrosis, and one year later, Burns<sup>4</sup> recommended

the addition of splints, lavage, and the application of antiseptic solution.

Just preceding World War I, Eisendroth<sup>5</sup> noted that amputation for open fractures was again in vogue, and stated that von Volkmann's principle of debridement had been discarded. He suggested that the 'Golden Period' be recognized, and that treatment be instituted within the first six hours immediately following injury.

During World War I, Hughes<sup>6</sup> demonstrated the danger of a tourniquet to the soft tissues in open fracture surgery, and utilized hydrogen peroxide for cleansing the wound, and in 1920, Orr<sup>7</sup> popularized the closed plaster technique for open wound treatment, particularly for the wound over 6-12 hours old.

Between wars, many poor results were reported, causing Graves<sup>8</sup> to point out the need of a method, a definite program, to include early surgical debridement, lavage, and prophylactic anti-tetanus therapy. With the advent of chemotherapy, just prior to World War II, Jensen<sup>9</sup> advocated the use of sulfanilamide and Thompson<sup>10</sup> in 1940 listed his "Ten Commandments for Fracture Therapy". This was followed by Meleney's<sup>11-12</sup> study of chemotherapy (sulfanilamide) in open fractures; the results of that work causing him to warn that sulfanilamide alone could not replace removal of devitalized contaminated tissues. His warning was echoed in 1945 by Cleveland<sup>13</sup>, who suggested that the high incidence of infection still reported was a result of the delay in treatment between the period of injury and the time of debridement.

In 1950 Altemeier<sup>14</sup> proposed the use of penicillin and streptomycin in combination to prevent the growth of organisms present in the open wound, and Key<sup>15</sup> in 1951 summarized that a good program included all methods basically sound, if it provided for care of nerves, vessels, and all soft tissues, as well as bone.



O'Connor<sup>16</sup>, late associate professor of Orthopedic Surgery at the University Hospital, Ann Arbor, Michigan stressed the need of method, undeviating, in open wound treatment. He demonstrated in that hospital system, excellent results, so that less sepsis was anticipated in open fracture care than one might expect from an elective orthopedic procedure involving bone. He noted too, that principles learned from war and civilian catastrophe were soon forgotten and with forgetfulness and deviation from these principles, we returned again to poor results.

The open fracture is a surgical emergency. Treatment begins at the onset of injury, including immediate complete immobilization of the part. The whole patient, upon arriving under the physician's care, is evaluated for injury to other organ systems. Pertinent laboratory studies are obtained, including catheterized urine study if necessary. The patient sustaining trauma sufficient to cause an open fracture of an extremity may have sustained injury to the bladder, kidneys or other organs. The study must include careful examination of the head, thorax, and abdomen as well as all extremities.

As in any emergency, most important problems are attacked first. Consideration is given to life, then limb, then function, and lastly, cosmetic result. The treatment of the fracture will await the institution of life saving or blood replacement procedures. In all cases of open fractures, there is time to think, formulate the approach to this particular problem, and then work the plan with dispatch.

When presented with a seriously injured patient, with an open fracture of a long bone, the following regimen is suggested. The number of steps utilized in the regimen may vary with the degree of injury, and the complexity of the problem. Little deviation is permitted in principle.

1. Shock, if present, is treated without delay. Whole blood or plasma expanders, if required, are given immediately. The patient is prepared for an emergency operation, if his condition warrants.

2. Tetanus antitoxin or toxoid and the proper broad-spectrum antibiotics are given as a routine measure prior to or soon after the surgical procedure. Skin sensitivity is tested prior to injection of tetanus antitoxin and the test, if positive, requires the antitoxin to be given in divided doses. For antibiotic treatment, I have found



*Fig. 1*  
*Preoperative immobilization, antibiotics and antitoxin*

1,000,000 units of penicillin and 1.0 gm. of streptomycin intramuscularly to be satisfactory initial medication, followed by 400,000 units of penicillin and 0.5 gm. streptomycin twice daily as a maintenance dose (Fig. 1). The patient's idiosyncrasy to these drugs or your experience may dictate other antibiotics and their method of administration.

3. An orthopedic prep of the involved extremity well above the site of the wound is performed as with any elective orthopedic procedure. The involved extremity is thoroughly scrubbed for at least 10 minutes by the clock with proper antiseptic soap or solution, with cover over the open wound (Fig. 2).



*Fig. 2. Thorough preoperative orthopedic prep*

4. A tourniquet is utilized only if necessary. If the procedure can be adequately performed without a tourniquet, it may be left in place, uninflated. The vital structures, including nerves,



vessels, and soft parts have been insulted once by injury, and possibly more than once in transportation. Depriving them of arterial supply and venous drainage will not enhance the final result.

5. The wound is irrigated thoroughly and the skin edges and necrotic superficial tissues about the wound debrided (Fig. 3). The wound is exposed further, thoroughly irrigated with normal saline, and again debrided. Care is taken to preserve all essential anatomical structures.



*Fig. 3*

*Lavage, debride, lavage copiously, extravagantly*

No necrotic areas are preserved. Nerves, vessels, and tendons, if involved, are either primarily repaired after lavage and inspection, or the ends are tagged or attached for repair by secondary procedure at another time. A decision is made at this time to further explore the wound or elect a secondary site of exposure to approach the fracture site (Fig. 4).

6. Once the fracture site is exposed, the area is thoroughly lavaged again, and tissues further debrided. The bone ends are inspected, cleansed, and rongeured free of contaminating material. Loose fragments are removed if necessary. If the fragments are large, or have attached to them periosteum and adequate blood supply, they should be preserved.

7. The wound is again lavaged. The open wound area may be further debrided from within, and lavage continued. Copious lavage will serve two purposes. First, it will cleanse the wound of foreign material and necrotic and unattached tissues, and second, it will dilute the

bacterial concentration to a level which the patient can better control by his own power of resistance. In a filthy wound, or one containing much debris, hydrogen peroxide is often a useful cleansing agent, followed by saline lavage.



*Fig. 4. After the exposure, debridement and lavage of the fracture site continues.*

The oxidizing agent appears to have a local hemostatic effect as well.

8. The fracture is reduced and stabilized by fixative devices if necessary. If the fracture reduction is stable or can be stabilized without internal fixation, one may elect to use plaster support or skeletal traction for control of the fragments. If reduction can only be main-



*Fig. 5. If the time factor and the condition of the wound permit, close primarily.*

tained by the use of internal fixation, this may be resorted to, and may include metal screws or a plate with screws. Very careful application of one or two screws will often obviate the neces-



sity of a plate, thus sparing periosteal or soft tissue stripping. Plates, constructed to hold bone fragments in place, may hold fragments apart, after resorption at the fracture site. Generally speaking, at the present time intramedullary nail fixation of an open fracture is subject to question.

Surgeons according to their experience and results may likewise elect to use external skeletal pin fixation or skeletal traction. Whatever the method chosen, the immobilization of the fracture should be adequate. The method chosen should spare stripping of soft tissues to prevent embarrassment of nerve and blood supply. Hemorrhage, trauma to the tissues, and necrosis may result in infection, if the fracture fragments are not immobilized. The wound may sustain further trauma, even compounding, if the fixation is inadequate.

9. If the time after injury and condition of the wound permits, the soft tissues are allowed to fall in place over the wound and the skin is closed primarily but loosely (Fig. 5). Otherwise if more than 6 hours had elapsed from the time of injury to the beginning of treatment, or if inadequate or questionable cleansing has resulted, or if doubt persists for any cause, it is wise to leave the wound open. The wound may be loosely packed with a light dressing, and healing be permitted by granulation with secondary closure or graft at a later date.

10. The patient is kept at rest with proper support, including whole blood, fluids, sedation, and antibiotics. Active muscle and joint motion is initiated early, particularly while in a cast or in traction. Physical rehabilitation of the patient and the parts should begin as soon as feasible following the injury.

If after the first five steps are completed thoroughly, you deem it best, you may with proper support of the limb, send the patient on to a medical center where further treatment is available. If at all possible give the patient the general supportive care, the antibiotics, the superficial debridement and irrigation, and proper immobilization of his fracture prior to transfer.

From Badgley<sup>17</sup> has come a word of warning. Many individuals retain within apparently healed wounds smoldering rests of bacteria which may cause sepsis at a much later date. Without adequate preparation, secondary procedures such as bone grafts or removal of fixative devices may result in infection. It is often wise to prepare such patient with further prophylactic tetanus toxoid, and antibiotic therapy, prior to additional surgery.

Results of treatment will be improved should the physician recall that in 1959, as in decades past, all open fracture wounds are contaminated and therefore potentially infected. Despite new orthopedic techniques, improvement in anesthesia, and new antibiotic discoveries, deviation from basic surgical principles will give the same poor results reported the past.

## SUMMARY

The evolution of open fracture treatment is reviewed. Emphasis on early treatment, copious lavage, and adequate debridement is stressed. A method for open fracture therapy is presented.

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# TUBERCULOSIS IN ALASKA

*E. W. GENTLES, M.D.*

SEWARD

The remarkable decrease in incidence of tuberculosis in Alaska is familiar to everyone—although the exact figures are probably known to only a few. The purpose of this article is not the presentation of statistics—since the figures for 1958 will have been sent to all licensed physicians by the time this goes to press. Rather it is hoped to acquaint the medical profession with some of the other aspects of the control, with the hope that physicians will take a more active part not only in case-finding and treatment but also in making suggestions for a better Program.

It is of interest to note, that, despite the decrease in cases, the incidence of active and probably active cases in 1958 was five times the average rate for the other 48 States in 1956; (1) that the incidence rate in 1958 for natives was more than twenty times the incidence amongst the whites; that the total number of cases found, in areas where private physicians are available, was less than 100; and finally that the death rates for natives was less than ten times the death rates in whites—despite the twenty times greater incidence. By far the greatest prevalence of tuberculosis is amongst the natives of the lower Yukon and Kuskokwim rivers. Despite rumors to the contrary, tuberculosis is not prevalent in the Aleutians, although Kodiak has a much higher incidence of tuberculosis than other non-native communities of similar size in Alaska.

In Alaska case-finding is still highly dependent upon chest x-rays. At present surveys are carried out by three units, each with a registered technician and a portable x-ray unit, with generator and dark room. Fourteen by seventeen inch films are taken almost exclusively. At present, insofar as tuberculosis is concerned, there are two almost distinct areas—the Western half of the State excluding the southern coast; and the remaining half which contains most of the non-native residents. The first area is a high-

incidence area and here surveys are conducted yearly, and, in some areas every six months. In this high incidence area it is the policy to x-ray everyone over two years of age. Except for Nome and Dillingham the communities here are served wholly by the Alaska Native Health Service. In the 'predominantly white' population areas, the policy is to survey every three or four years, concentrating on ex-patients, suspects, contacts, and positive reactors to tuberculin. This policy is not strictly adhered to, of course, since others who present themselves for an x-ray are not turned away. Approximately one-quarter of newly reported cases are found by the survey units, who literally live in the field travelling from one community to another, mainly by air. Well over 90 per cent of the population over 2 years of age is x-rayed every year in the villages and towns surveyed by the units and field hospitals.

Statistics show that in the white communities, case-finding is probably below par. In the U.S. as a whole the yield of active cases is usually five or six times greater in those seeking medical attention than in the population surveyed by the mass x-ray method. However, in 1958 less than 12 per cent of the new cases in whites were found by private physicians. Similarly routine hospital admission x-raying is usually much more productive in yield per 1,000 admitted than yield per 1,000 examined by mass surveys. Many communities in Alaska where x-raying is available still do not obtain routine hospital admission x-rays.

Reporting of the findings in the above two general areas leaves much to be desired, and suggestions to the Tuberculosis Control officer from the medical profession would be valuable in future planning in this regard. At present over 30,000 films are taken by the survey units

every year. These are largely interpreted at the Alaska Department of Health, Division of Tuberculosis Control in Anchorage. Obviously, notifying each individual of the results would be a considerable waste of money since many would be notified who cannot read. White populations usually expect some report as they are acquainted with practices in other states. At present the Tuberculosis Control Division forwards the results to the public health nurse, whose duty it then becomes to notify those who have positive findings. If communities desire written notification it is the present policy to have the community send out the reports. It is hoped that the physicians will offer suggestions concerning surveys and reporting on such in their communities so that a more satisfactory method of reporting can be carried out.

Tuberculin testing is a case-finding tool that all physicians should use. Not only is it valuable in finding positive reactors and possible cases but also follow-up of the contacts of positive reactors in schools yields a comparatively high number of cases of active tuberculosis. In Alaska the infectivity rate shows some surprising differences not only in different localities but also in the different age groups of the same locality. Thus, although the adult group may react almost 100 per cent to tuberculin many localities show less than 5 per cent reactors in the 0-4 age groups. Because BCG has not been used to any extent during the last three years, the 0-4 age group will have no, or few positives, produced by vaccination whereas older ages will have varying numbers of reactors produced by BCG. In the Anchorage schools during 1958 over 1900 tuberculin tests were given with 3 per cent showing positive reactions (to 5 T U of PPD). Other areas in Alaska during the same period showed as high as 70 per cent positive reactors in grade school children. However, in areas where private medical care is available the prevalence of tuberculosis is sufficiently low that the tuberculin test can be used to great advantage in case-finding, diagnosis and tuberculosis control. It behooves all of us in the medical profession to encourage tuberculin testing in our own communities, and if not in our offices, then through the public health nursing service.

Apparently Alaska is free from the fungus diseases endemic in certain areas of the U. S. A. This would appear to be true of histoplasmosis and coccidioidomycosis. In a personally conducted survey of over 100 native Alaskans, who had never travelled outside Alaska, not a single reactor to histoplasmin and coccidioidin was found, whereas reactions were obtained in personnel coming from endemic areas. This study conducted at Seward Sanatorium in 1957, and other studies done or presently being carried out by the U. S. P. H. S. apparently confirm this. (2) Of course, these diseases can be found in patients coming into Alaska but the chance of acquiring these diseases here is remote. However, a case of coccidioidomycosis found in the military here was apparently contracted when servicing equipment that had just arrived from an endemic area of California. It would appear that these diseases need not usually be included in the differential diagnoses of lesions found on the chest films of those who have not travelled outside Alaska.

In the past few years treatment of tuberculosis has been highly successful and if close supervision is maintained over the coming years the incidence of new infection should be brought closer to the U. S. average. However, there is a tremendous reservoir of infection which is presently fairly well controlled but which at any time could flare up in epidemics of major proportions.

Chemotherapy, adequate hospital beds and major surgery have reduced this reservoir and held the disease in check, but it will take constant surveillance and concentrated effort for many years to insure continued control and improvement in the tuberculosis problem of Alaska. For those who are laboring under the false belief that tuberculosis is licked, and to show how easily the disease can flare-up, we need only point out that already in 1959 the incidence is higher than for the total of 1958. The problem may be compared to a forest fire where the blaze has been brought under control but where there is still sufficient heat to produce new fires. In Alaska there is still much heat and smoke in the forest of tuberculosis disease.

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# DR. WILLIAM H. CHASE: PHYSICIAN — PIONEER

*JOSEPH A. TEDESCO, M.D.*

CORDOVA

The year 1874 to Alameda and Leander Chase was an eventful one with the addition of a new baby boy to the family. Little did they realize how eventful it really was for their son William H. Chase was to become one of the foremost pioneers of early Alaska.

His parents were both of French ancestry but were born in the United States. His mother and father were both natives of New York. At the time of Will's birth (as he was called for short) they were living in New York in the city of Warsaw.

His boyhood days patterned his later years. Much of his early activity centered around outdoor pursuits. His grandfather raised trotting horses in upper New York State and whenever possible his grandson would visit his ranch and engage in many of the activities associated with it. Other factors which probably played a major role in arousing the adventurous wanderlust spirit of our subject were born out of the family problems which tormented his boyhood days. As a result of this he decided it would be best for him if he left home, and at the age of 18, in 1892, upon completion of his schooling he set out to seek a more satisfactory existence.

He had heard often that New York City was a place of opportunity where one could seek his fortune and that was enough to make this city his new home. As we can see young Chase was early beginning to show signs of a man of his own convictions. He was soon to learn that to find one's fortune was not quite as easy as he suspected and that you couldn't get to the top by beginning there. By chance his first job was a clerk in a drug store, at the time he thought a rather long way from the top, and this is where his interest in the medical field began.

At first finances were a hindrance but with budgeting his money and working during the evenings he decided to go further and put himself through a two-year course in Mills Training

School for Male Nurses. During the course of his schooling while working in the drug store he and some friends went to the Chicago World's Fair. Here he met an old story-telling miner from the Yukon. Chase, being young and adventurous, was an eager listener. Subsequently several letters between this sourdough and Chase rekindled his adventurous urge but he wasn't ready yet to leave New York.

After graduating he accepted a job as a male nurse at Bellevue Hospital. His interests here were gradually growing and considerably more stable than the picture drawn by his northern friend. He knew well that to get ahead required perseverance. This was exemplified by a second important decision. Chase decided to continue his evening studies in the Eclectic Medical Training School while pursuing a nursing career during the day.

Here they covered a variety of subjects; during the first year anatomy, physiology and chemistry. Following this a student could choose from one of the specialties. Young Chase chose obstetrics as his field. During the ensuing years he followed this endeavor and in 1897 graduated in a class of fourteen.

He was anxious to see the north we know but to go alone relatively inexperienced as a physician was an appalling thought. Consequently he decided to work in the Bellevue Hospital as a physician and accumulate needed experience. So for the next few months, he listened at conferences, studied autopsy material, and learned the essentials of administering anesthetics.

Finally the time had come, and in 1897, Doctor Chase alone headed by way of the west coast to the north. He made it to Skagway without seeing anything more than a sore throat or a tooth ache. As we might expect, this wasn't to last. One day while passengers were embarking to Skagway from the old Queen (a 600-foot passenger ship) via skiff to shore, one of her Australian passengers slipped from the steep gang-

way and landed straddling his perineum on the skiff's gunwale. To say the least, his perineum suffered as did his urethra. After a good deal of trouble getting the man to shore and setting up a tent operating room, Doctor Chase, using ether anesthesia, performed a suprapubic cystostomy, sutured the perineal laceration, and inserted a urethral catheter. Unfortunately, there were no means for extensive postoperative care or follow-up, but by word of mouth it was learned, several weeks later, that the patient had fully recovered.

So as practicing surgeon and anesthesiologist, Doctor Chase moved north along the Skagway trail toward Dawson. He remembers numerous stories of hardship on this trek. He was an observer of an epidemic of meningitis which occurred between Skagway and the Canadian border. Unable to do a great deal medically, he saw many men die during this seige. Doctor Chase remembers passing some fifty ill individuals camping beside the trail, victims of then an incurable disease.

On the more encouraging side, along this perilous trail in a place called Sheep's Camp, Doctor Chase was to perform his first appendectomy. This, too, was a tent procedure. The patient involved was unfortunate enough to have a ruptured appendix, adding difficulties on top of those already present. A solution of ether and sterile water was used to wash the peritoneal cavity and the inferior portion of the wound was left open to facilitate drainage. The patient made an uneventful recovery.

The town of Dawson partly satisfied Doctor Chase's wandering urge, for he stayed there almost two years. He found time to be half miner and half physician. Whenever he wasn't working professionally, he was out searching for gold. As a physician, he made calls twenty to thirty miles away often on dog sled. As a prospector, he covered a good deal of northeastern Alaska. After completing some prospecting in the Tanana River area, his travels took him to Fairbanks where he practiced medicine for a short period of time.

Late in 1906 and early in 1907, Doctor Chase met Doctor Romig, Sr., who was then a Moravian Missionary in Bethel, running a small missionary hospital. Together they were the first in Alaska to set fees for appearing in court and

to begin the first Alaska Medical Association with Doctor Romig as president and Doctor Chase as secretary. They also were the first to perform postmortems for the third judicial courts in Valdez.

In the spring of 1907 Doctor Chase went to Katella and spent the following summer and winter searching for oil.



*Dr. William H. Chase*

His next move brought him to Cordova. It was May 8, 1908, when he and Doctor Council became the two physicians of this prosperous little coastal town. They set up a hospital in an abandoned cannery located in what is today



called old town. During the two years they remained in this building one event is noteworthy of mentioning. It seems that the iron man of "Seward's ice box", Tony Dimond, owes some of his success to an incident which happened in the vicinity of Cordova. He, for reasons unknown to the author and probably to Mr. Dimond, shot himself accidentally in the right leg, breaking his femur in several places. This event introduced Mr. Dimond as a patient to Dr. Chase and resulted in his spending the better part of a year in Cordova's first makeshift hospital. While there, he intensely pursued the study of law, leading him eventually to a degree in law, and subsequently to the position of district judge in Anchorage and in time, to be elected numerous times as Alaska's delegate to Congress.

In 1909, Doctor Chase was appointed Alaska's first health commissioner by Governor Strong. His duties consisted of inspecting all incoming ships for the presence of contagious diseases. During the time he served in this capacity it is of interest that he uncovered only three cases of smallpox and two of typhoid fever. He was also responsible for seeing to it that there was a reasonable semblance of sanitary facilities in town, a job he entertains today as the local health officer.

In 1925 he was invited to Washington by Doctor Nelson, Chief of the U. S. Biological Survey, to speak as an authority on Alaska. Doctor Chase, at that time, was, and still is, respected for his knowledge of the territory. While in Washington on this occasion, he had aspirations of becoming game commissioner instead of health commissioner due to strong interests in the preservation of Alaska's wildlife. After some to-do about being able to hold only one appointment, Washington consented to make him commissioner of both game and native health.

Cordova's second hospital was built by Doctor Chase and Doctor Council for six thousand dollars. This provided eight beds, nursing quarters for two, and an operating room. Some of the equipment was built locally, the remainder purchased from the states, and as a result, Cordova, for the first time, had a fairly well-equipped facility. A second appendectomy by Chase was

performed here with success and several Caesarean sections were done by Doctor Council assisted by Doctor Chase. Both men were busied with the every day medical needs of the town, some difficult, most routine, and some annoying. For instance, Doctor Chase remembers the time on the 4th of July in 1920, when he was in charge of all the local festivities and was plagued with the obstetrical problems, in this case three, one a preacher's wife, another a nurse, and a third, a native girl.

Many of us recall the influenza epidemic of 1919. Doctor Chase remembers it, I am sure, better than most. It seems Cordova had sixty-five cases, necessitating quarantining the town and setting up one of the local cannery buildings as an emergency hospital. With hard work, fatalities were limited to one. This happened to be an individual who was ignoring his ill health by consuming quantities of the local spirited beverages. As a result, Cordova had to do without a dentist for a short while.

During this same period, the Kennecott Copper Mines were in full swing and on an occasion during the winter when their physician was ill, Doctor Chase was called to Chitina to fill in until he recovered. One stormy evening when the river had all but washed out the Chitina river railroad bridge, leaving only the rails supporting the two ends, there was an accident at the mine. They sent an engine to get help. Doctor Chase had to crawl across the twisted track to the far side to be rushed to the survivors.

Some of the many other accomplishments Doctor Chase has crowded into his long life are more than twenty terms as mayor of Cordova, two terms as territorial delegate to the Republican Convention, and the authorship of eight books. Besides writing the **Sourdough Pot, Alaska's Mammoth Brown Bear, Reminiscences of Captain Billy Moore**, and others, he has written several articles for leading sporting magazines.

Today at eighty-six, he can frequently be seen walking the streets, responding to the call of those who need him, and, I am sure, thinking in the back of his mind that one of these days this land he worked so hard for is going to be the greatest state. ●

# Women's Auxiliary

A news column compiled by

Mrs. Vernon Cates

## 1959-60 OFFICERS OF THE WOMEN'S AUXILIARY TO THE ALASKA STATE MEDICAL ASSOCIATION

President ..... Mrs. Francis Phillips,  
Anchorage

Secretary-Treasurer ..... Mrs. Charles St. John,  
Anchorage

President-elect ..... Mrs. David Sparling,  
Mt. Edgecumbe

Fairbanks Chairman .... Mrs. James A. Lundquist,

Anchorage Chairman.....Mrs. James J. Fitzpatrick

## Our President Says -

The opportunity of greeting the members of the State Auxiliary, and all those doctors' wives we hope to call members through **Alaska Medicine**, is most welcome. By it, by letter, and by getting together more often, we look forward to knowing each other better during this new year of auxiliary work.

In the January, 1959, **Bulletin**, Mrs. E. Arthur Underwood, outgoing National Auxiliary President, wrote, "Physicians' wives have a dual responsibility as citizens. People look to them as leaders." Then, there is their responsibility of assisting the doctors in our state in the program for the advancement of better medicine and public health and cultivating friendly relations and understanding among the physicians' families. These are the main objectives of all medical auxiliaries.

The national and state auxiliary programs attempt to carry out these objectives by partici-

pating in civil defense, community service, legislation, mental health, safety, paramedical career recruitment, American Medical Education Foundation programs, and general health through **Today's Health** magazine. In the last two years, the Alaska Medical Auxiliary made recognized contributions to the American Medical Education Fund, and to the Paramedical Career Scholarship Fund. There is much to be done toward the other projects, as well. Any beginning is one more step forward in fulfilling the goal.

Before these civic and health needs can be met, the State Auxiliary must have more members. It needs you, each doctor's wife in each community. It needs you to work with the others in giving of your time, energies and interests to community and health services, which are "everyone's business".

Mrs. Francis Phillips



## ALASKA STATE MEDICAL CONVENTION

Were you at our State Auxiliary meeting in Juneau this year? If not, you missed a most enjoyable time. Our Juneau members outdid themselves to make the meeting one long to be remembered.

It really started the evening before the convention and I had not yet arrived, but those fortunate enough to be there were entertained Wednesday evening at Dr. and Mrs. Gibson's home where they were prepared for a wonderful dinner at Mike's in Douglas. Here old friendships were renewed and new friendships made.

Thursday the convention opened and we registered at the Baranof Hotel and were then taken to St. Anne's Hospital where a delightful tea was held. Following this we were escorted through the hospital by the members of the Hospital Guild and Sisters. We found their hospitality charming and their hospital well equipped. We thoroughly enjoyed our time there.

That evening produced another first for we saw the Red Dog Saloon and here a Smorgasbord dinner was served and we were thrilled by the piano playing of Hattie Jessup, a young lady far more than three score and ten, adorned in a suitable costume with her silver dollar belt and shoulder straps. We heard musical talent among our members that had been latent for years insofar as we knew.

Friday morning we were free so I visited some shops and did some window shopping.

Friday noon we were picked up by our hostesses, as beautiful flakes of heavy snow were falling, and taken to the home of Dr. and Mrs. Harrison Leer for a most enjoyable luncheon.

After the luncheon, our State President, Mrs. Anne Clements, called our meeting to order and our membership pledge was given. Following this, Mrs. Gladys Underwood, our National President, gave the invocation. A report was then given by Mrs. Marge Haggland on our scholarship award, which this year was given to Carol Colberg of Palmer and a student at our University. The American Medical Education Fund report was given and reports of accomplishments of local chapters were read. Officers were then elected for the coming year, and we were honored to have Mrs. Mary Lee Phillips named President and Mrs. Virginia St. John, Secretary-Treasurer. Mrs. David L. Sparling of Mt. Edge-

cumbe was named President-elect. Following this we had the rare privilege of being addressed by our National President, Mrs. Gladys Underwood of Vancouver, Washington. This was extremely interesting as we learned first hand of the work of our National Auxiliary. The priority projects for the past year included: assisting the American Medical Association to expand "Today's Health", interesting youth in medical careers, and safeguarding the health of America by urging the observance of the safety rules in all activities. In these, considerable progress was noted. She spoke of modern advances in medicine and how we were moving from the day of miracle drugs to the era of preventative medicine. We are to help this progress by expanding scholarships and student loans to those who need financial help. She stated that doctors' wives, regardless of where they live, have a common bond and the success of the Auxiliary depends on the wholehearted cooperation of all members. It was a pleasure to hear her and we felt honored to have our National President with us. The meeting was then adjourned and we were taken for a short visit to the legislature where we saw both senate and house members in action.

Friday evening was the Annual Banquet in the Gold Room of the Baranof Hotel. Organ music was played by Mrs. Lloyd Morley during the dinner hour. At the conclusion of the banquet we were again privileged to hear our National President, who was Guest Speaker. She spoke on the role of the doctor's wife in the home and community. Following her address the speakers, honored guests, and newly elected officers were introduced and Dr. George Hale, the newly elected President of the Alaska State Medical Association, delivered his inaugural.

Saturday morning was free and from 12 to 2 Mrs. Hugh Wade, wife of our Acting Governor, and the wives of the legislators entertained us at a brunch in the Governor's Mansion.

That evening, following a hospitality tour at the home of Dr. and Mrs. Wm. Whitehead the legislature hosted all members, guests and pharmaceutical representatives at a banquet in the Baranof Hotel.

—Mrs. C. E. Chenoweth

## CHIT CHAT

Mrs. G. Lee Stagg of Ketchikan has just completed a most successful year as president of the Alaska Music Trails. She recently served as hostess of a dinner party for thirty of the board members.

Another busy Ketchikan physician's wife is Mrs. Dwight Cramer who has been elected as P. T. A. president for the coming year.

The annual King Crab Festival in Kodiak was held May 1st and 2nd. Mrs. "Bob" Johnson accompanied her husband in participating in skin diving exhibitions in the small boat harbor there.

Mrs. Francis Phillips and daughter Susan accompanied Dr. Phillips to the annual Thoracic Surgical meeting held in Los Angeles, California, April 21-23, at the Statler Hilton Hotel. It was attended by 800 doctors, of whom 244 were active members. Arrangements were made by the L. A. Auxiliary for sight-seeing tours for the visiting families to Disneyland, Pacific Marineland, Rose Hills and many other points of interest. The wives joined the doctors at the annual banquet the evening of the twenty-third and enjoyed renewing friendships with those who have attended these meetings for years.

Mrs. Chester Schneider of Glenallen reports that besides her family duties, she is kept busy with many mission responsibilities one of which is giving a group of native women a course in teacher-training to help them in their Sunday school teaching. At present Mrs. Schneider is preparing for the family's move to Pennsylvania where Dr. Schneider will take a general practice residency for a year.

Mrs. Phillip Jones of Haines would like to extend an invitation on behalf of herself and her husband to anyone who might be driving the highway this summer, or boating in the area, to stop in for a visit. They live at Port Chilkoot which was formerly an army post known as Fort William Seward and is located adjacent to Haines.

Mrs. John Weston has been elected the new

president of the Women's Auxiliary to St. Joseph's Hospital of Fairbanks.

Miss Carla Carter, daughter of Dr. and Mrs. C. C. Carter of Juneau, was chosen as Alaska's Princess in the Washington, D. C., Cherry Blossom Festival this spring. Mrs. Carter spent the last week of March in Seattle with Carla helping her select her wardrobe for the week-long celebration. Carla has now returned to her Junior year studies at the University of Washington.

\* \* \*

## AWARD WINNER SELECTED

Miss Carol Colberg of Palmer was recently selected as an outstanding pre-medicine student at the University of Alaska and was presented with a \$100.00 grant-in-aid by the Woman's Auxiliary to the Alaska State Medical Association.

The award was given by the Auxiliary to encourage girls to enter medicine and its related fields.

Miss Colberg is a biological science major and will receive her Bachelor of Science Degree in May. She was recently accepted at five different medical schools to continue her education and has selected the University of Washington where she plans to spend the next five years.

Miss Colberg has worked most of her way through the University as a receptionist in the museum and as a student teaching assistant in the zoology laboratory. She is an active member of the Choir of the North and a student representative to the University Affairs Committee. In addition to these activities, she has managed to maintain an A-minus average for her entire college career.

She is from a medical family, her father being Dr. Arthur J. Colberg of Palmer and her mother, his assistant.

The family spent some time in China where Dr. Colberg was a medical missionary. ●



# *Muktuk Morsels*

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

**ANCHORAGE**

## **GENERAL**

In July, M. A. Perlstein, M. D., who is in charge of the Children's Neurology Service at Cook County Hospital in Chicago, will hold a three-day clinic in Anchorage under the joint sponsorship of the Alaska Crippled Children's Association, the Elks Cerebral Palsy Fund, the Children's Bureau of the Alaska Department of Health, and the National Foundation. Patients with various crippling diseases of the central nervous system, including epilepsy, cerebral palsy, congenital defects, and the various muscular dystrophies will be evaluated. Physicians who desire to refer patients to this clinic, may contact Dr. Helen Dittman, Clinical Director of the Anchorage Alaska Crippled Children's Treatment Center, 1020 I Street, for detailed information as only a limited number can be seen. Dr. Perlstein is one of the founding members of the American Academy of Cerebral Palsy, as well as being a noted authority on neuro-muscular diseases in children. All physicians are invited to attend these sessions.

## **LOCAL NEWS**

**JUNEAU**—Dr. William Whitehead of Juneau was appointed a member of the Alaska Judicial Council by Governor Egan. He was elected chairman by the group which is composed of three laymen and three lawyers, whose responsibility is to make nominations for our State Court System, including the Chief Justice of the Supreme Court.

Dr. William Ward has joined Dr. Joseph Rude and Dr. John H. Clements in the Doctors' Clinic in Juneau. He has had special training in General and Pediatric Surgery. Dr. George Sperry, U. S. Public Health Service, who has been running the Native Service Beneficiary Out-pa-

tient and In-patient Medical Service at St. Ann's in Juneau has elected to extend his appointment there for one year. He plans eventually to take a surgical and general residency under the auspices of the Public Health Service.

At the Heart Association meeting in Juneau this March, Dr. Henry Wilde and Dr. John Clements of Juneau, Dr. Dwight Cramer of Ketchikan, and Dr. Robert Shuler of Sitka were elected members of the Board of Directors of the Southeastern Council. Mr. Thomas Stewart of Juneau, a member of the Legislature, became Chairman of the Board; Dr. Robert Wilkins of Anchorage, President; Dr. John Weston of Fairbanks Vice-president; Mr. Harry Blair of Anchorage, treasurer; and Dr. Louis Salazar of Ketchikan, secretary.

In April Dr. John Clements attended a meeting of the American Academy of General Practice in San Francisco.

**WRANGELL**—Dr. John Bangeman of Wrangell has returned to the Denver, Colorado area for an extended vacation because of ill health. During his absence Wrangell patients have been flying to Petersburg to Dr. Russell C. Smith. Dr. David Sparling, pediatrician at Mt. Edgecumbe, spent several weeks in Wrangell during the first part of Dr. Bangeman's absence. Dr. Sparling recently returned from an American Academy of Pediatrics convention in San Francisco, California.

**SITKA**—Dr. Benjamin McBrayer, Medical Officer in Charge at Mt. Edgecumbe, was elected President-elect of the Alaska State Medical Association at the annual meeting this March.

**HAINES**—Dr. Phillip Jones, a 1954 graduate of the University of Nebraska College of Medicine at Omaha, who spent 2 years in Anchorage with the Air Force, became the first resident

physician in Haines in August, 1958. He is frequently assisted by his wife, a registered nurse.

SKAGWAY—Dr. William R. Coleman arrived in Skagway April 30, 1958 from an active practice in Tenino, Washington near Olympia. He is a 1937 graduate of the University of Nebraska College of Medicine. He is in charge of the 12-bed White Pass and Yukon Railroad Hospital. This narrow gauge railroad still carries freight between Skagway and the city of Whitehorse, in Yukon Territory, Canada, over the original gold-mining route.

CORDOVA—A 7 pound, 15 ounce baby girl was born March 30th in Anchorage to Dr. and Mrs. Joseph A. Tedesco.

GLENALLEN—June 1st, Dr. Chester L. Schneider will leave with his family for a year of general practice residency in Bristol, Pennsylvania. During the coming year, his associate, Dr. James Pinneo, will continue to handle the Central Alaskan Mission Hospital at Glenallen. These two physicians serve patients from as far north as the Canadian border, south to Valdez and Chitina, and west to Eureka. Both doctors have been holding monthly clinics at Tok and Northway.

FAIRBANKS—Dr. George Cloutier headed a party of mountaineers, who attempted to climb Mt. McKinley this May. Research data on high altitudes and fatigue, and the psychiatric aspects of mountain climbing were obtained.

Dr. Kenneth Kaisch is chairman of the St. Joseph's Hospital staff. Part interest in a helicopter has been obtained by Dr. Hugh Fate.

Another flying physician was recently added to the Fairbanks area when Dr. Elliott Coles made his first solo flight.

Both Dr. Lawrence Dunlap and Dr. Joseph Ribar recently attended the annual Summer Memorial lectures in Portland. While there, Dr. Ribar attended the 10th reunion of his class at the University of Oregon Medical School. After completing his first year at Dental School in Portland, Dr. Hugh Fate's son will return to Fairbanks to work during the summer.

Dr. and Mrs. Donald Tatum have a new son. Fairbanks Medical Delegate to the National

Foundation Regional Conference in San Francisco was Dr. John I. Weston.

FORT YUKON—Dr. W. Burns Jones, Jr., who has been sponsored by the Episcopal Church, will be leaving shortly. It is anticipated that out-patient medical care in that region will be provided by the Alaska Native Health Service of the U. S. P. H. S. with a physician assigned to the out-patient department there.

KOTZEBUE—Dr. Robert Fraser, who has been in Pennsylvania getting postgraduate training in Internal Medicine and Metabolic Diseases, will return to Kotzebue this summer for the U. S. P. H. S.

BETHEL—Dr. George Wagnon has moved from Dillingham to Bethel to become the medical officer in charge of the U. S. P. H. S. Hospital, replacing Dr. William Brownlee, who has been transferred to the Crow Indian Reservation in Montana.

KODIAK—Dr. Bruce Keers and Dr. "Bob" Johnson recently flew to outlying villages of Kodiak Island, including Old Harbor, Koguyak, Alitak, Uyak, and Afognak, holding itinerant clinics in each. Leaving England in mid-May, Dr. and Mrs. A. Holmes Johnson will arrive in Kodiak about June 1st, completing their extensive tour around the world.

SEWARD—Dr. Joseph Deisher is the 1959 President of the Seward Chamber of Commerce. A new shrimp packing industry in Seward has been very successful to date.

SELDOVIA—Dr. Russell Jackson, formerly of Anchorage, has been doing a part-time private medical practice for the past two years. He also is active on the Seldovia City Council, is building his own home, and is engaging in part-time commercial fishing.

ANCHORAGE—Dr. and Mrs. Stewart Ra-beau had their first child, a 7 pound, 4 ounce girl, recently in Chicago.

Many new physicians have come to the Anchorage area during the past year. Four of these are internists.

Dr. Louise Ormond, a 1947 graduate of the University of Rochester School of Medicine, entered practice in May, 1959.



Dr. Rodman Wilson joined the Anchorage Medical and Surgical Clinic in the fall of 1958. He graduated from Johns Hopkins in 1946 and served as assistant professor of medicine at the University of Cincinnati College of Medicine and at the University of Colorado School of Medicine.

Dr. Robert Whaley, a 1950 graduate of the University of California, San Francisco, California, was formerly associated with the Arctic Health Research Center, where he was doing field studies on heart disease among the Alaskan Natives. The study was sponsored jointly by the U.S.P.H.S. and the Alaska Heart Association.

Dr. William Maddock, graduate of the University of Oregon in 1947, was formerly on the faculty at Wayne State University College of Medicine, Detroit, Michigan. He has done original research in endocrinology. Both of these men are now associated with the Doctors' Clinic.

Dr. Rudy Leong, formerly of Oregon, has become established in general practice. Dr. Frank A. Montmorency, formerly of the Wayne State University medical faculty, is the first urologist in private practice. Dr. James S. Cheatham, a graduate of Harvard Medical School, stationed with the Air Force at the 5040th Hospital, has been doing part time private psychiatric consultation. Dr. Edwin C. Kraft, who originally came to Alaska with the U.S.P.H.S. where he

was stationed at Point Barrow, returned to Alaska, after a year of Public Health Service residency in Boston, Massachusetts, to join the Anchorage Medical and Surgical Clinic. Dr. George B. Wichman, an orthopedic surgeon, formerly with the Alaska Department of Health at Mt. Edgecumbe, is presently associated with Dr. William J. Mills, Jr.

Many meetings and postgraduate courses were attended this spring. Dr. Royce Morgan went to an Obstetrics Session at Cook County Hospital, Chicago. San Francisco was visited by Dr. John Tower for an American Academy of Pediatrics meeting, and by Dr. William Caughran for the National Foundation regional conference.

Both Dr. Joseph Shelton, who attended an Ophthalmology Course, and Dr. Howard Romig, who attended a Gynecology seminar, travelled to New York City. Dr. Romig was a panel participant on Pediatric Endocrinology at the American College of Gynecology and Obstetrics held in Atlantic City. After serving as Heart Drive Chairman for Anchorage, Dr. Francis J. Phillips attended a Thoracic Surgery conference in Los Angeles.

In April Dr. R. E. Harrell was elected to the board of the Fairview Public Utilities District, and is the president of this group. ●

# Letters to the Editors . . .

To the editors:

If a state medical association with a hundred members can produce a journal like your first issue of **Alaska Medicine**, (four) times a year, you will really be doing something. I have taken the liberty of writing an editorial of welcome and shall be glad to put an exchange into effect, since we exchange with all the other state journals, which then find their repository in the Boston Medical Library . . .

Joseph Garland, M. D., Editor  
The New England Journal of Medicine

★

To the editors:

. . . I am amazed . . . Your quality is equal to that of any of the state journals . . . Like Athena, you seem to have come forth complete in every detail. I do not know how you did it but the journal speaks very well for itself.

Herbert L. Hartley, M. D., Editor  
Northwest Medicine

★

To the editors:

Your new journal has an appropriately beautiful cover, the content is timely and most interesting to physicians throughout the United States who look forward with pleasure to becoming better acquainted with their fellows in Alaska. Congratulations are in order to the Alaska State Medical Association which has accepted **Alaska Medicine** as its official journal.

Johnson F. Hammond, M. D., Editor  
The Journal of the American Medical Association

★

To the editors:

I think this is a very attractive cover. The format of the journal is excellent . . . a very fine beginning in a journal that will live way beyond your time.

Carl E. Badgley, M. D., Professor of  
Orthopedic Surgery  
of Michigan School of Medicine

★

To the editors:

As presiding officer of the Oregon State Medical Society I write to congratulate you on

the presentation to the medical field of an entirely new type of magazine, one that certainly is worthy of all our attention, and one which we sincerely hope has a great success. We extend to you and your fellow colleagues in (Alaska) every good wish from the physicians in Oregon.

Herman A. Dickel, M. D., President  
Oregon State Medical Society

★

To the editors:

From the attractive cover to the last article, the organization and make-up is excellent. The scientific articles are unusual and interesting. I enjoyed Bill Whitehead's "President's Page".

Lucius D. Hill, M. D., The Mason Clinic  
Seattle, Washington

★

To the editors:

Your entire committee and enthusiastic contributors all deserve a "well done." I am most pleased with your rich outer cover—choice of color, the unique lettering and the commanding picture symbolic of your Alaska. I read every word in the volume, which distinction no other medical journal can claim.

Alec Whitley, M. D.  
St. Clair Shores, Michigan

★

To the editors:

I'm most enthusiastic about this magazine and happy to contribute the cover. Incidentally, for your information, this picture which you used was of the North Face of Mt. Brooks, not McKinley!

Bradford Washburn, Director  
Museum of Science and Hayden  
Planetarium  
Boston, Massachusetts

★

To the editors:

No journal has been entered in our Kardex with more enthusiasm than **Alaska Medicine**, Vol. 1, No. 1, March, 1959!

Marjorie Darrach, Professor and  
Director of Medical Library Service  
Wayne State University College of  
Medicine ●



# Editorial Page -

At its annual meeting in Juneau, The Alaska State Medical Association accepted "Alaska Medicine" as its official publication. The editorial staff was pleased that the only apparent concern of the association was to insure that members of the association adequately support their new journal. The actual mechanics of operation of "Alaska Medicine" by the Alaska State Medical Association are set forth in the new By-Law adopted at Juneau which can be found in the official minutes on page 71 of this issue.

To briefly summarize, here is how it actually came about. On Saturday morning, March 21st, the Association adopted the resolution and accompanying by-law, making "Alaska Medicine" its official publication. Within minutes thereafter, incoming-president Dr. George Hale appointed the new 8-member Editorial Board listed in the title page of this issue. The new board met at noon and as its first official act appointed Dr. Mills as Editor-in-Chief. Dr. Mills, in his acceptance speech, appointed essentially the same editorial staff as for the first issue.

The response to "Alaska Medicine" from outside the state of Alaska has been heart-warming and gratifying. Excerpts from some of the many letters received are set forth in our first "Letters to the Editors" section on the previous page. The editors wish that there was sufficient space to reproduce, in full, all of the letters received.

In the May 14th issue of The New England Journal of Medicine, Dr. Joseph Garland, the Editor, wrote a warm welcome to "Alaska Medicine" and reproduced, for all to see, the front cover of the first issue. As a result of this editorial, inquiries and subscription requests have been received from all over the United States. Dr. Herbert Hartley, editor of "Northwest Medicine" has been most generous and gracious in his congratulations on our first issue and in his offer to help us as we withdraw from "Northwest Medicine" which has served us, at our request, the past 13 years. His offers to help have already been accepted and he has given us valuable suggestions on the operation of a medical journal. We will continue to seek his advice and members of the staff plan to visit him at his editorial offices in Seattle in the near future.

We wish to again encourage letters of suggestion and criticism from our readers. It is our hope that all of the physicians of Alaska will participate in one way or another in their official publication. The editorial staff has been stimulated and encouraged by the enthusiastic response to volume 1, number 1, and is grateful for the trust that the Alaska State Medical Association has placed in us by accepting "Alaska Medicine" as its official publication.

## ANNOUNCEMENTS

**Second printing of the first issue of "Alaska Medicine".** In response to numerous requests, 1000 additional copies of "Alaska Medicine", volume 1, number 1, have been printed. Additional copies may be obtained for \$1.50 each by writing to the Editor-in-Chief, 742 K Street, Anchorage.

**Northwest Society for Clinical Research.** Dr. John R. Hogness, Secretary-Treasurer of the society has invited Alaska physicians to apply for membership in the Northwest Society for Clinical Research. To quote from his letter: "This group is purposely non-restricted and membership is open to any interested physician in the Northwest, including Alaska, of course. The next meeting is to be on the 9th of January, 1960, here in Seattle." Interested physicians, and we hope there are many in Alaska, should write to Dr. Hogness at 721 Minor Avenue, Seattle 4, Washington.

**Our faces are red.** In a letter which appears on the preceding page, Bradford Washburn points out that the picture by him is not Mt. McKinley as we stated, but the North Face of nearby Mt. Brooks. For this coming winter's issue, the editors plan to use a picture of the **real** Mt. McKinley on the cover!

**Cover picture contest:** All physicians are urged to submit glossy black and white prints of pictures taken by them which they consider might be appropriate for the cover of "Alaska Medicine." The best one submitted, in the opinion of the editorial staff, will be used and credit will of course be given. Entries should be accompanied by any information of interest pertaining to the photo. ●

**William O. Maddock, M. D., Editor**

# President's Page



Let me thank you again for the honor of being elected your State President for the present year. As predicted by my predecessors, there has been a constant flow of administrative problems which I am sure will continue for the months ahead.

Dr. Milo Fritz is to be appointed "key man" in Alaska to act as liaison officer with the Committee on Legislation of the American Medical Association. It will be his duty to spread the word to all of us when action is needed on legislation of concern to us in Washington, D.C.

I have appointed Dr. Henry Wilde of Juneau and Dr. Duane Drake of Anchorage to the Rehabilitation Committee which was previously appointed by Dr. Whitehead. Those already appointed are Dr. Ray Langdon, Dr. Francis Phillips

and Dr. Henry Storrs. Dr. Phillips will be chairman of this committee.

A Mental Health Committee required by our bylaws has not been previously appointed. I am pleased to announce that Dr. Virginia Wright O'Malley of Anchorage will be the chairman of this new committee. Other members of the committee will be Dr. Edward Spencer of Sitka, Dr. Donald Tatum of Fairbanks, Dr. Bob Johnson of Kodiak and Dr. Charles St. John of Anchorage.

I hope that you will consider these appointments as official and the committee chairman will contact their list of members and carry on from there.

I will look forward to seeing each of you at our next annual convention which will be in Anchorage the week of the Fur Rendezvous, February 22, 23, and 24, 1960. Best regards.

*GEORGE E. HALE, M.D., President  
Alaska State Medical Society, 1959-1960*



# FLYING PHYSICIANS' ASSOCIATION — ALASKAN CRUISE

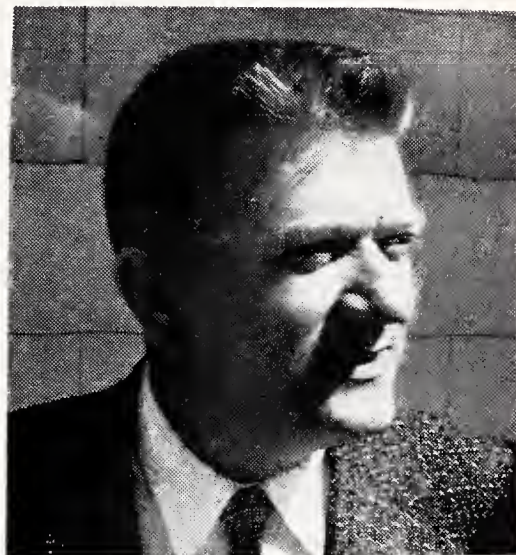
*CHARLES F. ST. JOHN, M.D.*

ANCHORAGE

On June 18 Anchorage will expect the arrival of the earliest planes of the Flying Physicians Association, due for their meeting here June 22, 23 and 24. Alaska, with its unusually high ratio of private planes to civilian population, is a most appropriate choice of meeting place for such a group.

The Flying Physicians Association is an organization of physician-pilot-owners, sponsoring fly-in medical meetings throughout the United States and in adjoining areas of the continent. The group has aims and purposes in keeping with the best traditions of the medical profession. They are vitally concerned with air safety and have contributed materially to the knowledge and wide-spread use of safety devices, such as the shoulder harness, for both pilot and passengers. This association is in solid agreement on the necessity for more adequate training for the private pilot. A private pilot's certificate is required for the new member and to maintain membership the physician-pilot must certify that he has had either the 180° course or sufficient instrument training to enable him to accomplish the same blind turnaround. Dr. Frank Coble has devoted a great deal of time to the development of the Flying Physicians Disaster Program, a program which could be of immeasurable aid in Civil Defense in case of a national disaster. You may count on hearing more about this program later as our Alaska chapter becomes better organized. Dr. Coble plans to attend the Alaska meeting and will be able to tell us how this has been worked out in the rest of the country.

The association is headed by S. D. Sullenger, M. D., of Dandridge, Tennessee, President. The Executive Director is Mark E. DeGroff, P. O. Box 3275, Tulsa, Oklahoma. Membership applications may be obtained by writing either directly to Mr. DeGroff or to the Alaska chairman, C. F. St. John, M. D., 501 L Street, Anchorage.



All Alaskan physician-pilots are cordially invited to become members and to attend the meetings to be held in Anchorage in June. Rooms have been reserved and some are still available. No reservations can be accepted later than June 4, however, as rooms in Anchorage this summer will be unbelievably scarce. For reservations write to the Alaska chairman at the address above, and, please, be specific about your passengers . . . whether you need one or two rooms.

Nearly all of the reservations made indicate that the members will be accompanied by their wives, many will bring their children and others will bring non-member guests. Accordingly, our program is planned to be interesting to as many of the wives and guests as possible. Those readers who are fliers may be interested in the types of aircraft expected, as according to the reservations made: Piper Super Cruiser, Apache, Comanches, Tripacers, Cessnas—170, 172, 180, 182, and 310, Bellancas, Navion, Spartan, and Bonanzas. The Bonanzas appear to be in the majority, accounting for 18 of the 52 planes planning the trip.

The following program has been tentatively planned:

**SATURDAY, JUNE 20**

12 noon—Matanuska Valley Tour.

**SUNDAY, JUNE 21**

1 P. M.—Portage Glacier Tour.

8 P. M.—Buffet, Idle Hour Country Club, preceded by social hour.

**MONDAY, JUNE 22**

Chart Room, Westward Hotel.

10 A. M.—“The Human Maintenance of the Man-Missile Team,” Dr. Emerson and Dr. Beers, United States Air Force, Elmendorf Air Force Base.

11 A. M.—“Physical Examinations and Flying Fatalities,” Air-Sea Rescue Service, United States Air Force, Elmendorf Air Force Base.

11:30 A. M.—“Crash Rescue Operations in Alaska,” Air-Sea Rescue Service, United States Air Force, Elmendorf Air Force Base.

12:30 P. M.—Luncheon, Chart Room.

8 P. M.—F. P. A. Welcoming Banquet, Chart Room, Guest Speaker to be announced.

**TUESDAY, JUNE 23**

Chart Room, Westward Hotel.

10 A. M.—“Cold Injuries,” Dr. William Mills, Diplomate American Board of Orthopedics, President, Anchorage Medical Society.

10:30 A. M.—Aeromedical Discussion of High Altitude Thermal Injuries.

11 A. M.—“Arctic Health Research,” Dr. Robert Whaley, Anchorage.

12:30 P. M.—Luncheon, Chart Room.

**WEDNESDAY, JUNE 24**

Chart Room, Westward Hotel.

10:30 A. M.—“Bush Pilot Operations in Alaska.”

11:30 A. M.—Speaker from Anchorage Chamber of Commerce.

12 noon—Adjournment.

Wives and guests are expressly invited and welcome to attend. Commercial charter flights will be available all during the week for those who wish to see more of the state or who wish to take fishing trips while here. Since none of the arriving members from the rest of the States will have their planes on floats we could safely guess that the Alaska physician-pilots, who would like to show our lakes and wilderness to visitors, may consider this their golden opportunity. ●



**PICTORIAL REVIEW OF THE 14TH ANNUAL MEETING OF THE  
ALASKA STATE MEDICAL ASSOCIATION--(Photos by Gordon Murger, Parke, Davis & Co.)**



*Acting Governor and Mrs. Hugh J. Wade, Juneau*



*Dr. Wm. Whitehead, retiring president and Mrs. E. A. Underwood, national president of the Women's Auxiliary, A.M.A.*



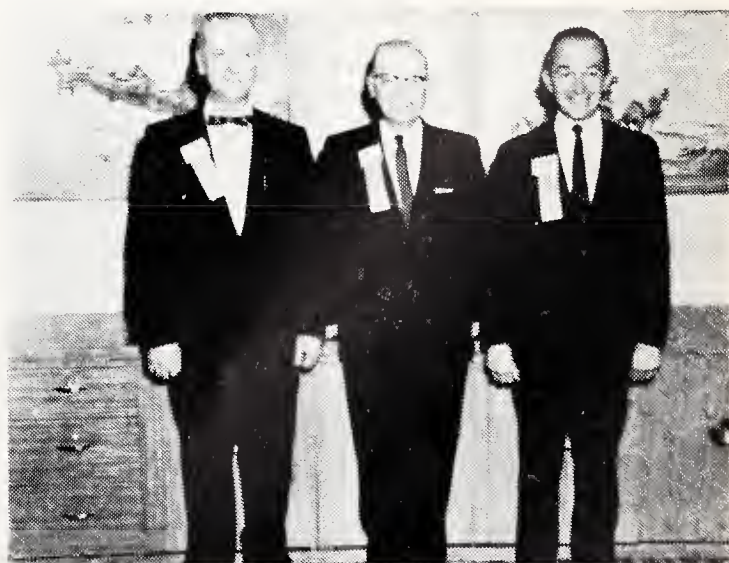
*Dr. William Whitehead, President of A.S.M.A. confers with Dr. Jack Gibson of Juneau.*



*Symposium on Ulcerative Colitis: Drs. Edward, Morgan, Seattle, George E. Halc, Anchorage, Duane Drake, Anchorage, Michael Beirne, Anchorage, J. B. K. Smith, Juneau, Henry Wilde, Juneau.*



*New A.S.M.A. officers, 1959. From left to right, Drs. Wm. Whitehead, retiring president and new secretary for legislative representation; Milo H. Fritz, A.M.A. delegate; Peter Koeniger, vice president; George Halc, President; Benjamin E. McBrayer, president-elect; John H. Clements, councilor for Southeastern Alaska, and Robert B. Wilkins, secretary-treasurer.*



*Visiting speakers, left to right; Drs. R. A. Pommerening, Seattle, R. F. Peterson, Butte, Montana, Edward Morgan, Seattle.*



# MINUTES OF THE 14TH ANNUAL MEETING

of the

## ALASKA STATE MEDICAL ASSOCIATION

March 19, 20, 21, 1959

Juneau, Alaska

### Thursday, March 19, 1959

President William M. Whitehead opened the meeting at 10:00 a.m. at the Masonic Temple in Juneau.

Acting Governor Hugh J. Wade and M. L. MacSpadden, Mayor of Juneau, welcomed the group to the capital city.

The President then made the following committee appointments:

Drs. Shelton, Clements, Philip Moore, Kaisch and Wilkins to the Fee Schedule Committee with Dr. Wilkins as chairman;

Drs. Koeniger, Fate, McBrayer and Leer to the Nominating Committee, with Dr. Leer as chairman;

Drs. Keers, J. W. Gibson and Hale to the Resolutions Committee, with Dr. Hale as chairman;

Drs. Fritz, Fate and Philip Moore to the Budget Committee, with Dr. Fritz as chairman.

R. A. "Dutch" Derr, Director of the Alaska Visitors Association, was introduced by President Whitehead and gave a stimulating talk in which he suggested that consideration be given to holding future ASMA Conventions in smaller, economically insecure communities in Alaska.

Henry Harmon, Director of the Department of Public Welfare, gave a report of the activities of his organization. A general discussion of welfare problems in the state followed.

The meeting was recessed at 12:00 and reconvened at 1:30 p.m.

President Whitehead called for a reading of the minutes of the 1958 Convention, and the treasurer's report. With a unanimous vote of those present, the reading of the minutes of the previous meeting was dispensed with and the minutes approved. The Treasurer's report was presented and approved.

The President then made additional committee appointments:

Drs. Sparling, Philip Moore, Helen Whaley and Mills were appointed to a Committee for Maternal and Child Care Health and Crippled Children's Service and directed to confer with members of the Legislature and the Alaska Department of Health and to submit a report on the third day of the Convention. Dr. Sparling was named chairman.

Drs. Storrs, Langdon and Phillips were appointed to an Advisory Committee on Vocational Rehabilitation, to meet with Mr. Ray Hruschka, Director of the Alaska Office of Vocational Rehabilitation. Dr. Storrs was named chairman.

Drs. Deisher and Fate were appointed to confer with Mr. Harmon regarding Welfare problems.

The meeting was turned over to Dr. Wilkins in order to discuss the Constitution and By-Laws of the Association.

Secretary Wilkins presented a recommendation of the Executive Board that the changes in the Constitution and By-Laws presented at the 1958 Convention in Fairbanks be formally adopted, and also the following changes: that the official name of the Association should be "Alaska State Medical Association"; that the word "State" should be substituted for "Territory" throughout; that in Article VII of the Constitution, a Vice-President should be included as one of the officers of the Association; that the requirement that in order to be a member a physician must be in private practice should be deleted from Article I, Section 4, paragraph A of the By-Laws; and that Article VIII of the By-Laws be amended by abolishing the Medical Defense Committee.

The members then voted unanimously to accept the Constitution and By-Laws as previously presented, and also the changes recommended by the Executive Board.

The business meeting was recessed at 2:00 p.m. and was followed by the scientific program.

### Friday, March 20, 1959

After opening the meeting, President Whitehead introduced John Rader, member of the State House of Representatives who spoke on the combined Health and Welfare Departments in the new State government organization. He recommended that a professional group be appointed to consult with the Legislature regarding the operation of the combined department.

The report of the Nominating Committee was presented by Dr. Leer as follows: for President, Dr. George E. Hale; for President-Elect, Dr. Benjamin E. McBrayer; for Vice-President, Dr. Clarence Bailey; for Secretary-Treasurer, Dr. Robert B. Wilkins. Sitka was recommended as the location for the 1961 meeting.

For Councilors: from Ketchikan, Dr. G. Lee Stagg; from Juneau, Dr. John H. Clements; Seward-Anchorage-Kodiak, Dr. A. Holmes Johnson; from Fairbanks, Dr. Paul B. Hagglund.

Delegate to the American Medical Association: Dr. Joseph M. Ribar and Alternate, Dr. Peter J. Koeniger.

A joint meeting with the Hawaii Medical Association in Honolulu was also suggested by the Nominating Committee.

President Whitehead called for further nominations from the floor. Dr. Deisher was nominated



for President-Elect. Dr. Koeniger was nominated for Vice-President. Dr. R. Holmes Johnson for Councilor from the Anchorage-Seward-Kodiak district, Dr. Dunlap for Councilor from the Fairbanks district, Dr. Fritz for AMA delegate, and Dr. Ribar as alternate AMA delegate.

Dr. Hale was elected President, Dr. McBrayer President-Elect, Dr. Koeniger Vice-President, Dr. Wilkins Secretary-Treasurer, Drs. Stagg, Clements, R. Holmes Johnson and Dunlap Councilors, Dr. Fritz AMA Delegate, and Dr. Ribar Alternate AMA Delegate. Drs. Johnson and Dunlap were elected for two year terms.

Dr. Hale Chairman of the Resolutions Committee, presented the following resolutions for consideration:

#### RESOLUTION 1

WHEREAS, the Keogh Bill provides for needed tax relief for self-employed professional men who are not eligible for Social Security,

BE IT RESOLVED that the Alaska State Medical Association send telegrams to Senators Bartlett and Gruening and Representative Rivers recommending that all possible support be given to the passage of the bill.

#### RESOLUTION 2

WHEREAS, an Alaskan medical journal, "ALASKA MEDICINE", is a present reality, and

WHEREAS, the Alaska State Medical Association requires an organ through which it may voice its collective opinion to each member and to the public at large, and

WHEREAS, this project has been proven economically feasible,

NOW, THEREFORE, BE IT RESOLVED that the report of this committee be accepted, and

THAT "ALASKA MEDICINE" be made the official journal of this Association, that the by-laws of the Association be amended as suggested, and that "NORTHWEST MEDICINE" be notified of this change and sincere thanks extended for their service in the past.

#### RESOLUTION 3

WHEREAS, each member of the Alaska State Medical Association gratefully recognizes his debt of gratitude to his medical school, and

WHEREAS, each of us contributes annually to the American Medical Education Foundation on an individual basis, and

WHEREAS, the effectiveness of these contributions is lost by reason of anonymity,

BE IT THEREFORE RESOLVED that a check in the amount of One Thousand Dollars (\$1,000.00) be given to the Alaska State Medical Association Delegate to the American Medical Association for presentation to the American Medical Education Foundation before the assembled House of Delegates in Atlantic City at the annual session in June, 1959.

#### RESOLUTION 4

WHEREAS, it is the custom of the State Delegations of the larger States to have hospitality suites at the hotels in which are held the annual and interim (clinical) sessions of the American Medical Association, and

WHEREAS, the necessary social obligations are filled by the social organization known as the Aces and Deuces, and

WHEREAS, many physicians and others know of the great impetus given Statehood for Alaska by

all Texans and especially the Texas physicians, and

WHEREAS, the Texas physicians wish to feature the greatness of both Texas and Alaska in their hospitality suite in Atlantic City in June, 1959, with maps of both States and products of both a serious and humorous nature indigenous to both, and

WHEREAS, because of our relatively small treasury the Texas physicians recognize our inability to spend large amounts of money for efforts of this kind and are willing to underwrite all the expense,

BE IT THEREFORE RESOLVED that a sum not to exceed \$300.00 be given the Delegate of our Association for the purchase of maps, small totem poles, records and other Alaskanana to be sent to Atlantic City for this interesting and useful means of educating all physicians visiting the suite regarding the virtues, history and information of other interest regarding our State.

#### RESOLUTION 5

WHEREAS, Senate Joint Resolution No. 2 relating to the need for hospital medical care for all Alaskans and the need for continuance of local community hospitals has been presented in the Senate by Senator Logan,

BE IT THEREFORE RESOLVED that endorsement of the bill by the Alaska State Medical Association be forwarded to Senator Logan.

#### RESOLUTION 6

WHEREAS, the Alaska State Medical Association is vitally interested in the public health program in Alaska, believing it to be one of the major functions of State government, vital to the well being of every Alaskan, and

WHEREAS, the members of the Association work in close alliance with professional personnel in the health programs, and

WHEREAS, the members of the Association urge that effective safeguards must be established in the reorganized government to maintain the progress which Alaska has made in this important program,

NOW, THEREFORE, BE IT RESOLVED by the Alaska State Medical Association that the following recommendations be made:

1. That a Division of Public Health be established in the Department of Health and Welfare and that primary responsibility for all recognized health functions of the State be transferred to that Division.

2. That the position of Director of Public Health be established in the Department of Health and Welfare and filled by the Governor's appointment: that requirements for the position be established, giving full recognition to the fact that public health is a specialty field within the practice of medicine. Minimum qualifications for the Director should equal those adopted by the American Public Health Association and published in its journal, Volume 44, February, 1954, which are:

- a. Graduation from an approved school of medicine and licensure or eligibility for licensure to practice medicine in the State.
- b. Whenever possible, experience and training should be such that he would be certified or eligible for certification in public health by the American Board of Preventive Medicine.
- c. If such is not available, then one should be selected with at least one year of postgraduate training in an accredited school of



public health and at least **three** years of successful experience in a full-time administrative position in an acceptable health agency. In lieu of training in an accredited school of public health, he should have a total of at least **five** years full-time successful experience in an acceptable health agency. Residence within the State prior to appointment should **not** be a requirement.

3. That the Governor appoint an Advisory Health Council, subject to confirmation by a majority of the members of the Legislature in joint session, to advise the Director of Public Health on all matters affecting the health of the people of Alaska, and that the Council be consulted on organization of health activities under the new Department of Health and Welfare.

4. That the Advisory Health Council consist of nine members appointed for three to five year terms, from various parts of the State on the basis of their interest in public affairs, their good judgment, and with a view to providing diversity of interest and points of view, and selected to provide broad representation of the health professions, health agencies, and the public at large; that no more than two members be from any one professional or special interest group.

5. That provision be made to assure medical direction of health programs at all levels of government, state, regional and local.

#### RESOLUTION 7

WHEREAS, the Alaska State Medical Association has noted the conscientious efforts made by Dr. Harry V. Gibson, Commissioner of Health, and the significantly good job accomplished by him and his department despite the usual difficulties of Alaska and the additional trials and uncertainties met during the transition to Statehood;

NOW, THEREFORE, BE IT RESOLVED, that the Alaska State Medical Association extend its appreciation to Dr. Gibson for his efforts and achievements and its encouragement and support to him in developing the health resources of the State.

#### RESOLUTION 8 (defeated 3-21-59)

WHEREAS, the mutual support of members in distress or trouble is most worthy and appropriate of this Association, and

WHEREAS, there is an ever-increasing need to study and resolve the mounting threats of litigation against our members, and

WHEREAS, the defense fund has been collected specifically for these purposes,

NOW THEREFORE, BE IT RESOLVED that this fund be continued and be it further resolved that these funds be made available to the Alaskan State Medical Association Grievance Committee that they may meet and study the problems of medical defense and that with or without request by a member faced with a suit or threat of suit, offer such member such assistance, or take other action as they may deem advisable, without the physician divulging any confidence unethically; PROVIDED, HOWEVER, that neither the defense fund nor the ASMA in any way become responsible for or make payment on a settlement or judgment against any member.

#### RESOLUTION 9 (defeated 3-21-59)

WHEREAS, the Alaska State Medical Association is composed largely of physicians in private practice, and

WHEREAS, we are firmly convinced that free enterprise and the free choice of physician lends itself in the long run to the best practice of medicine and the greatest good to the citizens of this State, and

WHEREAS, there is a precedent and apparent necessity of Government participation in the preservation of the health of the citizens and in some instances, the specific medical therapy of some citizens, and

WHEREAS, we are all aware of a tendency of Government bureaus to expand and find more work for themselves,

NOW, THEREFORE, BE IT RESOLVED that the president appoint a standing committee of five members, whose terms shall be staggered, which committee shall:

1. Diligently follow the actions of all Government departments having to do with the health of the populace, both Federal, State and local, and shall report to the ASMA and thence to the people, especially when they tend to exceed their boundaries or lay plans for expansion.

2. Study the economic climate in the various areas of the State which are at present deficient in medical care, and make recommendations as to specific legislation and other long-range action which will enhance the economic picture to the ultimate goal that the private practice of medicine will, by the simple law of supply and demand, resolve the deficiency.

#### RESOLUTION 10 (defeated 3-21-59)

WHEREAS, the location of the annual meeting is important to the membership of the Alaska State Medical Association, and

WHEREAS, the meeting should be located where the greatest number can reasonably attend, and

WHEREAS, no area should arbitrarily be removed from the stimulation of said meetings, and

WHEREAS, the distribution of physicians has been shifted overwhelmingly from Southeastern Alaska to the north and west,

NOW, THEREFORE, BE IT RESOLVED that there be two meetings in the northwest to every meeting held in Southeastern Alaska, rotating between Anchorage, Fairbanks, and Southeastern Alaska.

#### RESOLUTION 11 (defeated 3-21-59)

WHEREAS, the duties of the president of the Alaska State Medical Association have vastly increased in scope, and

WHEREAS, the scope of the annual meeting has increased and promises to continue to enlarge, and is of great importance, and

WHEREAS, the organization of the annual meeting can be readily separated from the other duties of the president without detracting from his effectiveness, and

WHEREAS, many physicians of presidential caliber do not reside in the particular convention cities, and

WHEREAS, the preservation of democratic government and self rule should be augmented by electing all-important officials, and

WHEREAS, a physician elected in open meeting feels a greater responsibility to the membership at large than one requested to perform a given task,



NOW, THEREFORE, BE IT RESOLVED that there be elected annually a convention chairman residing in the seat of the next annual meeting, who shall have the responsibility of making all arrangements for said meeting and authority to make reasonable commitments for said meeting in the name of the Alaska State Medical Association.

#### RESOLUTION 12

WHEREAS, Dr. William M. Whitehead, the retiring president of the Alaska State Medical Association, has worked diligently and effectively during his term of office, and

WHEREAS, Dr. Whitehead and his convention committees have arranged a stimulating and enjoyable annual meeting,

BE IT RESOLVED that the members of the Alaska State Medical Association congratulate Dr. Whitehead and express their appreciation of his efforts.

#### RESOLUTION 13

WHEREAS, the need for official representation of the Alaska State Medical Society with the Legislature of the State of Alaska has been recognized, and

WHEREAS, representation of the ASMA should be by one of its currently active regular members engaged in the private practice of medicine in Alaska, and

WHEREAS, any paid lobbyist or other paid representative should act only under the direction of the aforementioned representative of the ASMA.

NOW, THEREFORE, BE IT RESOLVED by the ASMA that the following recommendation be carried out:

1. That a permanent position be established for the purpose of officially representing the ASMA with the Alaska State Government, particularly its executive and legislative branches.

2. That the position be called "Secretary for Legislative Representation".

3. That the position be filled by a regular member of the ASMA engaged in private practice in Juneau, the capital of Alaska.

4. That the position will be filled this year by appointment of Dr. William M. Whitehead by the incoming President of the ASMA, and thereafter be elected by the same procedure as the present elective offices of the ASMA.

Resolution No. 6 and No. 13 were passed unanimously. Action on the remaining resolutions was deferred until the following day.

Dr. Hale also presented the following proposed amendment to the By-Laws:

Section 1. **ALASKA MEDICINE.** The incoming president shall appoint an editorial board of 8 members to provide for and superintend the publication of the official journal of the Association under the title **ALASKA MEDICINE**. All material published in this journal shall be strictly ethical in character and all advertisements of therapeutic products published in the journal shall further conform to the rules and regulations of the appropriate councils, bureaus, and committees of the American Medical Association.

Section 2. **MEMBERS OF THE EDITORIAL BOARD.** There shall be 8 members of the board appointed from areas well distributed throughout the State of Alaska, so as to assure representation of each functional center of population upon the board. The first appointments will be made for unequal terms, two members being appointed for one year, two for two years, two for three years, and two for four years.

At the termination of the period of service of any member, the president shall appoint a successor. No member shall succeed himself on the board but may be appointed again after one year off the board. The president of the State Association shall be an ex-officio member.

Section 3. **DUTIES OF THE EDITORIAL BOARD.** The Editorial Board shall establish policy for the journal in accordance with the constitution and by-laws of the Association. It shall function as an Editorial Advisory Board. With reference to **ALASKA MEDICINE**, it shall have the responsibility that a board of trustees operating a corporation normally has. It shall select an Editor-in-Chief who shall be a member of the Association and shall approve the other members of the staff as selected by that Editor-in-Chief.

Section 4. The official journal shall be supplied and sent to all dues-paying and honorary members of the Association, and to such other persons and under such other rules and regulations as the Editorial Board may direct.

Section 5. **MEDIUM FOR NOTICES.** Except as otherwise provided for by law or in the constitution and by-laws, publication of any notice in the official journal shall be considered as full notice to all members of the Association for any purpose.

A financial report for the first issue of **ALASKA MEDICINE** was presented by Dr. Mills.

Dr. Fritz gave the report of the Budget Committee, which was accepted.

The Fee Schedule Committee report was read by Dr. Wilkins as follows:

After consultation with various members from all areas of Alaska and members representing various phases of practice, the Committee recommends:

1. The adoption of the Fee Schedule recommended by the Veterans Administration or an improvement for fiscal year 1959-60.

2. The adoption of, as an average, the fee schedule adopted in 1958 with changes—

- a. Refraction of eyes, reduced from \$25.00 to \$20.00.

- b. Certain pediatric items added.

- c. Addition of all Medicare items not included.

- d. Correction of certain typographical errors.

3. For the Department of Public Welfare, Alaska Department of Health, Alaska Native Health Service, Office of Vocational Rehabilitation and Fishermen's Fund, for work not done in a facility supplied by the agency, that the fee schedule above (2) be used. If agency funds run out, it is recommended that ASMA members treat their clients gratis if true situation of indigency prevails.

4. Within facility provided by the various agencies, individual ASMA members may make contracts including any appropriate variation of this schedule.

The President introduced Dr. Harry V. Gibson, Commissioner of Health, who discussed a proposal for the admission of white people living in remote areas to Public Health Service hospitals. Dr. Gibson also made a plea for more support from the physicians in planning the medical programs for the State.

Dr. Gallagher, Alaska Native Health Service, spoke on the program of his department.

The meeting was recessed until the following morning.



Saturday, March 21, 1959.

The meeting was opened at 8:15 a.m. by President Whitehead.

The following resolutions, introduced the previous day, were adopted: No. 1, 2, 3, 4, 5, 7, and 12. Resolutions No. 8, 9, 10 and 11 failed.

The Amendment to the By-Laws regarding ALASKA MEDICINE presented the previous day was passed with the addition of the following:

Section 6. "The publication of ALASKA MEDICINE shall be fiscally autonomous. Five dollars of each member's dues shall be turned over to the publications committee."

Resolution No. 14 was presented and adopted as follows:

WHEREAS, House Bill 49, an Act requiring a nuclear license or permit; providing for certain studies; creating an Atomic Energy Advisory Board; authorizing the appointment of a Coordinator of Atomic Development Activities; and encouraging cooperation with the Federal Government, is currently under consideration in the House of Representatives of the Alaska State Legislature, and

WHEREAS, use of nuclear power in general and industrial and medical use of atomic by-product material is expanding, and

WHEREAS, such use involves direct and indirect problems related to the health and safety of the general population, and

WHEREAS, the Atomic Energy Advisory Board to be appointed by the Governor is to consist of not more than five members, among whom there shall be one member of the State Senate and one from the State House of Representatives, and those who represent the various activities affected by atomic energy and other forms of radiation; the Coordinator of Atomic Development Activities shall be a member and shall be ex-officio the Secretary of the Board and.

WHEREAS, medical research, diagnostic and therapy techniques utilizing atomic by-products are constantly expanding,

NOW, THEREFORE, BE IT RESOLVED that the Alaska State Medical Association request the Governor to consider in his appointments to the Atomic Energy Advisory Board inclusion of a physician licensed to practice medicine in Alaska who is conversant with and trained in radiologic health and safety procedures, preferably licensed by the Atomic Energy Commission for the medical use of radioisotopes.

Dr. Deisher moved that the annual dues for members of the ASMA be raised to \$75.00. The motion was seconded and passed.

Dr. Blanton moved that \$10.00 of each member's dues be placed in a special fund for annual donation to the American Medical Education Foundation at the annual session of the AMA. The motion was seconded and passed unanimously.

Dr. Blanton moved that the money in the Medical Defense Fund should be transferred to the general fund of the ASMA. The motion was seconded and passed unanimously.

Drs. Raymond F. Peterson, Edward H. Morgan and Robert A. Pommerening were unanimously voted to honorary membership in ASMA, and the Secretary was instructed to prepare certificates for them.

President Whitehead appointed Drs. McBrayer, Shelton and Maddock to a committee to study the proposal of admitting non-natives to USPHS Hospitals

in remote areas.

**Saturday afternoon session.**

The report of the Committee on Vocational Rehabilitation outlining a six point program was accepted.

Dr. McBrayer reported for the Committee on the use of outlying ANHS hospitals, and stated that the Surgeon General, through the Public Health Service, requested the ASMA to make known their approval or disapproval of the plan to let non-natives use these hospital facilities in remote areas. Dr. McBrayer said that the committee recommended that no action be taken on this request at the present time, but that the president appoint an interim committee to consider the problem, and that the Alaska Dental Society and the Alaska Hospital Association be requested to appoint similar committees to meet with the ASMA committee. The report was accepted and a motion was duly passed that the recommendations contained in the report be put into effect.

Dr. Hale moved that the Legislative Secretary be empowered to expend the Society's funds in an amount not to exceed \$1,000 for the purpose of a lobbyist for the ASMA at times when the State Legislature would be in session, for the purpose of advancing the causes of the Association, the welfare of its patients, and for the purpose of alerting the members of the Association of potentially inimical legislation or imminent legislation not in the best interests of this Association or the principles for which it stands. After a second the motion passed unanimously.

It was moved by Dr. Deisher that the previous motion be amended by adding the words "or other expenses in connection with his duties". The motion was seconded and passed unanimously.

Dr. Moore extended an invitation to the members to hold the 1961 meeting at Sitka. It was moved by Dr. Blanton that the invitation be accepted, seconded and passed unanimously.

It was moved by Dr. Blanton that the members of the ASMA recognize the amount of work and time spent by Dr. Wilkins in the performance of his duties as Secretary, and that a vote of thanks be given him. Dr. Hale seconded the motion and it was passed unanimously.

The recommendations of the Fee Schedule Committee presented on the previous day were unanimously adopted by the Association.

A motion was unanimously passed that life insurance companies should be advised that \$15.00 would be considered a fair figure for life insurance examinations and reports.

President Hale announced that the members of the Editorial Board of ALASKA MEDICINE would be as follows: for the 4-year term: Dr. Fate, and Dr. Whitehead; for the 3-year term: Drs. Shelton and Wilson; for the 2-year terms: Drs. Deisher and A. Holmes Johnson; for the 1-year term: Drs. Philip Moore and Simpson.

Dr. Hale announced that Dr. Mills had been appointed Editor-in-Chief and Dr. Maddock Editor of ALASKA MEDICINE, and that the members of the Editorial Board would choose their own chairman.

There being no further business to come before the meeting, the President adjourned the meeting at 4:30 p.m.

Robert B. Wilkins, M.D.  
Secretary-Treasurer  
Alaska State Medical Association



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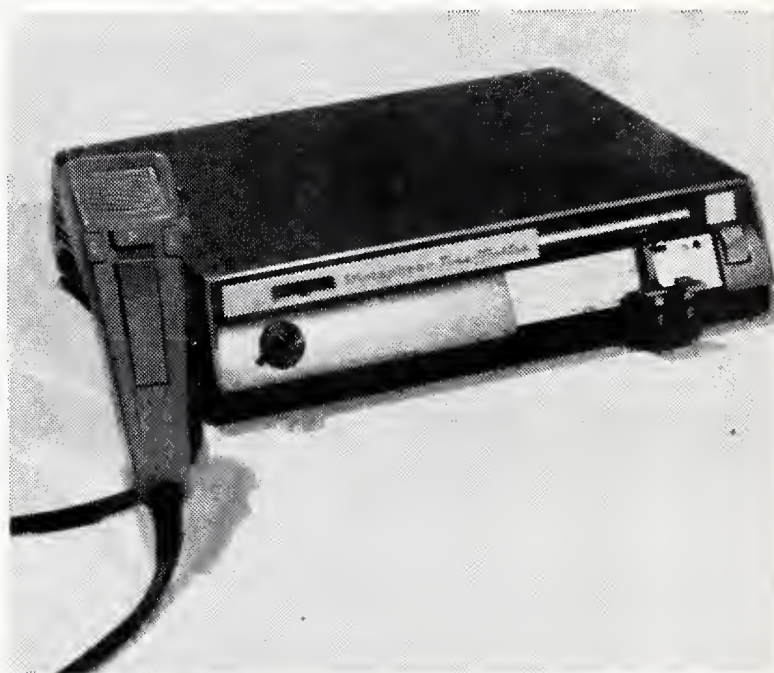
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# Alaska Medicine

Volume I, Number 3

SEPTEMBER, 1959

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# A TEST FOR THE ENZYMATIC DEFICIENCY OF HEREDITARY METHEMOGLOBINEMIA

*E. M. SCOTT, Ph.D.*

*Arctic Health Research Center  
ANCHORAGE*

The presence of methemoglobin in red cells may be due to any one of three causes: exposure to a toxic material such as nitrite, or other drugs and chemicals; the presence of an abnormal hemoglobin (hemoglobin M) (1); the hereditary absence of an enzyme necessary for reduction of methemoglobin (2, 3).

Methemoglobinemia is ordinarily suspected from the observation of cyanosis in a patient with no apparent circulatory or respiratory disorder. The presence of methemoglobin in blood is easily confirmed by the method of Evelyn and Malloy (4). The blood in methemoglobinemia is dark, almost chocolate-colored, and this coloration persists after shaking with air. Addition of neutral cyanide will change the blood color to a bright red. This change can be readily observed visually in a 5% suspension of red cells in 0.9% sodium chloride.

Differentiation of the three types of methemoglobinemia may be made as follows:

1. Acquired methemoglobinemia due to exposure to toxic materials will disappear when the exposure is interrupted, while the other types are not so affected by an environmental change. However, it should be noted that the amount of methemoglobin in the enzymatic type of methemoglobinemia will be affected by ascorbic acid intake (2, 3, 5). If a methemoglobinemic person of the hereditary type is placed in a hospital and his ascorbic acid intake is increased, the amount of methemoglobin will decrease and the cyanosis will be much less evident. In one case in Alaska, confusion in diagnosis occurred because of this effect of change of diet.



2. Hereditary enzymatic methemoglobinemia can be distinguished by the lowered capacity of the red cells for reducing methemoglobin (2, 3). The determination of rate of reduction of methemoglobin is quite cumbersome and we have found that this method is inaccurate and not always reproducible. A test for diaphorase (6) in red cells described below is much more satisfactory. Treatment of this type of methemoglobinemia by injection of methylene blue reduces all the methemoglobin to hemoglobin but the effect is transitory and methemoglobin can be detected again a few days after treatment.

3. Methemoglobinemia due to an abnormal hemoglobin is inherited as a dominant trait while

the enzymatic type is recessive. A cyanotic patient with hemoglobin M should therefore have a cyanotic parent. Hemoglobin M is most readily detected by a spectrophotometric test (1) or by starch electrophoresis (8).

## METHOD OF DETECTION OF ENZYME DEFICIENCY IN METHEMOGLOBINEMIA

### Reagents:

ACD—1.47 gm glucose, 1.32 gm sodium citrate and 0.44 gm citric acid are dissolved in 100 ml water. 2 ml are used as anticoagulant for 10 ml of blood.

Phosphate-buffered saline—1 volume 0.1 M potassium phosphate buffer, pH 7.3 plus 9 volumes 0.9% sodium chloride.

1% sodium nitrite—100 mg sodium nitrite is dissolved in 10 ml phosphate-buffered saline immediately before use.

Tris buffer, pH 8.55—121 gm tris(hydroxymethyl)aminomethane is dissolved in water, brought to pH 8.55 with concentrated hydrochloric acid and made up to one liter.

0.01M EDTA solution—3.2 mg sodium ethylenediaminetetraacetate (Eastman) are dissolved in 100 ml distilled water.

0.0012 M 2,6-dichlorobenzeneindophenol solution—39 mg of the dye (Eastman) are dissolved in 100 ml 0.01 M tris buffer, pH 8.55.

DPNH solution—40 mg reduced diphosphopyridine nucleotide (90% pure, Sigma Chemical Co.) are dissolved in 5 ml distilled water. The solution is kept frozen.

Five to ten ml. of blood are collected with an anticoagulant (preferably ACD if the specimen must be held for any length of time). The cells are centrifuged off and washed three times with 10 volumes of phosphate-buffered saline. For each ml of cells, 1 ml 1% sodium nitrite is added and the mixture shaken with air at intervals for two hours. The cells are then centrifuged off and washed five times with 10 volumes of phosphate-buffered saline.

To one ml. of oxidized cells is added 19 ml. of distilled water. The mixture is shaken, centrifuged, and the hemolyzate decanted from the ghosts. The methemoglobin content of the hemo-

lyzate is determined by the cyanmethemoglobin method or by the method of Evelyn and Malloy (4). To two cuvettes are added the following: 0.05 ml tris buffer, 0.1 ml EDTA solution, and 0.1 ml 2,6-dichlorobenzeneindophenol solution. To one cuvette is added 2.65 ml water, and to the other is added hemolyzate equivalent to 3.25 mg methemoglobin and water to a volume of 2.9 ml. The reaction is started by addition of 0.1 ml DPNH solution to both cuvettes and optical density at 600 mu determined at 5 minute intervals for 20 minutes. The rate of reaction is calculated in both cuvettes by the formula:

$$\text{Rate (in min}^{-1}\text{)} = \frac{\log \text{ optical density at 10 min} - \log \text{ optical density at 20 min}}{10}$$

Net rate of reaction is the rate with hemolyzate minus the rate of the blank.

## RESULTS

There are 18 known cases of hereditary methemoglobinemia in 10 Alaskan Eskimo and Indian families (5). Red cells from 10 methemoglobinemic persons in 8 of these families have been tested by the above procedure. In addition, 11 parents of methemoglobinemic children and 56 presumably normal white persons have been studied.

The results are shown in Table I. The rate

**Table I. Rate of reduction of dye (min<sup>-1</sup>), corrected for non-enzymatic reaction.**

Subjects	Number	Average Rate	Standard Deviation	Range
Methemoglobinemic	10	.0000	.0005	-.0008-.0008
Parents of Methemoglobinemic Children	11	.0042	.0014	.0022-.0060
Normal	56	.0093	.0023	.0045-.0179

of non-enzymatic reduction of dye is about .005 min<sup>-1</sup>, and the addition of methemoglobinemic hemolyzate causes no appreciable change in this rate. Most normal hemolyzates show a net rate of dye reduction of .007 to .012 min<sup>-1</sup>, while parents of methemoglobinemic children have net rates of from .003 to .006 min<sup>-1</sup>.

## DISCUSSION

The enzyme for which this test was developed can be called a diaphorase, since it catalyzes the



reduction of a dye by a reduced pyridine nucleotide. The enzyme also can be considered as a cytochrome *c* reductase or a methemoglobin reductase. The latter two types of enzymatic activity are much less readily demonstrated, since the relative rates of reaction with dye, cytochrome *c* and methemoglobin are 15,000:130:1. The enzyme is specific for reduced diphosphopyridine nucleotide; reduced triphosphopyridine nucleotide is less than a tenth as active (7).

Lack of this enzyme satisfactorily explains the symptoms found in methemoglobinemia. Hemoglobin in the presence of air undergoes a slow spontaneous oxidation to methemoglobin. The red cell has enzymatic systems capable of metabolizing glucose, but it lacks a cytochrome system and therefore has no aerobic metabolism. Consequently the pyridine nucleotide in the red cell is normally in the reduced state. Reduced pyridine nucleotide in the presence of the enzyme here described reduces any methemoglobin that may be formed and the latter is therefore not normally detectable in the red cells.

### SUMMARY

Hemolyzates from persons with hereditary enzymatic methemoglobinemia will not catalyze the reduction of the dye 2,6-dichlorobenzenediphenol by reduced diphosphopyridine nucleotide. Enzymatic activity of normal hemolyzates in this respect is easily demonstrable. A test

based on this observation may have clinical usefulness in differentiating the enzymatic type from other forms of methemoglobinemia.

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# THE PATHOLOGICAL PHYSIOLOGY OF BONE DISEASE\*

HENRY WILDE, M.D.

JUNEAU

## THE ANATOMY AND HISTOLOGY OF BONE

Almost all bone is preformed in cartilage. Intramembranous ossification occurs in the frontal, parietal, part of the occipital and temporal bone as well as in the maxilla and mandible. Endochondral bone forms from perichondrium in the center of long bones. Cartilage is eroded by blood vessels and connective tissue and a marrow cavity is formed. This results in a tube; the diaphysis which is capped on ends by epiphyses. The cartilage cells are arranged in rows and the organic matrix between them calcifies. Capillaries proliferate into it, are followed by osteoblasts which then form bone matrix (osteoid). Inorganic matter deposits here, hardening the matrix. Remodeling of matrix is continuous through osteoblast and osteoclast activity. The typical long bone consists of the substantia compacta, the marrow cavity and a spongiosa at both ends. A periosteum and endosteum line the outer table diploe (spongiosa) and the inner table. The pericranium is the periosteum and the dura is the endosteum. Both compacta and spongiosa consist of layers or lamellae. These are arranged concentrically along vessels to form a Haversian system or osteone unit. The physiological processes are probably the same in all bone.

## THE BASIC CONSTITUENTS OF BONE

**The bone mineral** is the apatite lattice crystal of calcium phosphate which binds large amounts of water. There is constant ion interchange and crystals are of different size and solubility. **The organic bone matter** is nearly all collagen. This is a crystalline substance secreted by cells. It is physiologically inactive. Ground substance is a poorly understood polymer of glucuronic acid and hexoseamines, comprising about 5% of organic bone matter (excluding fat). **Water** composes 60% of forming bone. Only 10% of senile bone is however water. It is all bound to the apatite crystals of the calcium phosphate complex. **The turn-over or remodeling** of bone matrix is continuous but poorly understood. Some of the



mechanisms involved in remodeling are change in hydration of individual crystals, ion exchange or re-shuffling within crystals and thermal re-crystallization. These are modified by growth, resorption (osteoclastic activity) and age. New crystals are highly hydrated and imperfect, old ones are less hydrated and more perfect. Old bone elements may even become physiologically unavailable. The proportion of old elements increases with age. Skeletal minerals participate in electrolyte shifts of serum. Only recently formed osteones participate rapidly since they are in closer contact with circulation. This fact has blocked attempts to "wash out" radioactive minerals from bone. Bone physiology is hence governed by numerous factors such as chemical crystal laws, serum concentrations of calcium and phosphorus (serum is supersaturated in respect to these ions), the osteoblast and osteoclast systems, numerous endocrine influences which act on some or all of these factors, the absorption and excretion of substances required by bone and yet unknown mechanisms.

## CALCIUM AND PHOSPHORUS METABOLISM

**Calcium** composes 1½% of body weight. Almost 99% of this is within bone. Systems other than bone which require calcium are blood coagulation, regulation of membrane permeability, regulation of neuro-muscular and myocardial excitability and production of milk. The normal

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human diet contains about 1 Gm of calcium. It is absorbed by the stomach, duodenum and jejunum. Absorption is not determined by body need. It is favored by vitamin D, a high protein diet, calcium depletion states and an acid medium. Absorption is reduced by vitamin D deficiency, an increased dietary phosphate content, an alkaline medium, excessive oxalate and fat intakes. Serum calcium is in a supersaturated state due to the action of parathormone and vitamin D (normal 9-11 mg/100 cc). About 50-70% of this is ultrafiltrable, the rest is protein bound and of less physiological importance. Calcium can be mobilized from bone almost instantly. The calcium:phosphate ratio is 2.2:1. Calcium elimination is renal.

**Phosphorus** composes about 1% of body weight. About 90% of this is in bone. The normal diet contains about 0.9-1.3 Gm. Absorption occurs in the small bowel. Excretion is renal. Absorption is favored by vitamin D and an excess fatty or low calcium diet. Absorption is reduced by a high oral intake of iron, calcium and aluminium hydroxide. The normal serum phosphorus range is 3-4 mg/100 cc. That of children is higher: 5-6 mg/100 cc.

### THE EFFECT OF PARATHYROID HORMONE (PTH)

PTH has been the center of much controversy. Two major theories of action have emerged since Collip and associates first crystallized parathormone at this university.

**The Phosphaturic Theory of Albright and Reifenshtein.** PTH has a primary phosphaturic effect on the kidney. This causes a fall in the serum calcium:phosphorus solubility Konstant which results in resorption of calcium from bone. The arguments in favor of this theory are: An isolated kidney which is perfused with serum and PTH reacts by phosphaturia. Following parathyroidectomy there is a marked decrease in urinary phosphorus concentration. This can be reverted by PTH administration. The arguments against this theory are: PTH causes an increase in serum calcium in nephrectomized rats. There is evidence for a direct effect of PTH on bone, demonstrated by bone resorption around transplanted parathyroid tissue and in tissue culture with added PTH. The issue is further confused by

recent experiments which demonstrated that the phosphaturic and hypercalcemic effects of PTH may differ in 2 fractions of a PTH preparation. Phosphaturia may also be induced in both animal and isolated kidney by a variety of different tissue extracts.

**The Primary Effect on Bone Theory** of Collip and more recently of Newman holds two mechanisms responsible for the action of PTH on bone. Mechanism one is present in normal and parathyroidectomized animals. There is a diffusion equilibrium between bone and serum which alone can maintain serum calcium at about 7 mg/100 cc. Mechanism two operates only in the presence of PTH, acting directly on bone. Any fall in the serum calcium level stimulates PTH release and shifts calcium from bone to serum, maintaining it in a supersaturated state.

### THE EFFECT OF VITAMIN D

Vitamin D is produced by irradiating ergosterol. It is also known as calciferol. The cod liver oil vitamin is not the same as calciferol and is more active. The D group vitamins of higher vertebrates are all derived from cholesterol. Vitamin D<sub>3</sub> is such a substance of animal origin. 7-Dehydrocholesterol is the naturally occurring provitamin D. Little vitamin D is found in natural foods and much of the human requirement is obtained by exposure to sun and hence by irradiation of the provitamin in skin. Vitamin D rich foods are: fish livers, egg yolk, butter. Milk is poor in vitamin D but fortified milk contains 135-400 USP units of vitamin D per quart. The recommended daily vitamin D intake should be 400-600 units. The ratio of optimum to lethal dose of vitamin D is 1-2000.

The vitamin D group favors absorption of calcium and phosphorus from the gut and increases the rate of bone resorption thus freeing mineral for the calcification of newly formed bone. In massive amounts (above 50,000 U.q.d.) it acts in a similar fashion as PTH; increasing mobilization of calcium and phosphorus from bone to an undesirable degree.

### THE EFFECT OF OTHER HORMONES

**Growth hormone** stimulates growth of epiphyseal cartilage. **Thyroid hormone** acts syner-

gistically with growth hormone and also accelerates maturation of bone. It may cause an increase in renal calcium excretion. **Estrogens** have an uncertain effect in inhibiting resorption of spongy bone. **Androgens** are poorly understood in their relationship to bone metabolism. **ACTH and the cortisones** suppress new bone formation (osteogenesis) but do not interfere with normal bone resorption. This may result in osteoporosis.

## DISEASES OF BONE

These may be divided conveniently into 3 main groups but more than one mechanism may be operative in one disease. 1. Disturbances in growth of cartilage. 2. Disturbances in osteogenic-osteolytic balance. 3. Disturbances in deposition of apatite in cartilage or bone matrix.

### 1. Disturbances in growth of cartilage:

Excessive growth:

- hyperpituitarism in childhood
- hyperthyroidism
- hyperandrogenism
- hyperestrogenism

Decreased growth:

genetic

- dyschondroplasia group
- progeria
- constitutional dwarfism
- pseudo-hyperparathyroidism syndrome
- Turner's gonadal dysgenesis syndrome

physical

radiation

nutritional

- caloric restriction
- immobilization

endocrine

- hypopituitarism
- hypothyroidism
- Cushing's syndrome

### 2. Disturbances in osteogenic-osteolytic balance:

Osteoporosis:

This is a decrease in calcified bone. There is decreased matrix formation. This is not true decalcification since the only difference between osteoporotic and normal bone is in the

mass of matrix which, however, has a normal calcium content. It is the only metabolic bone disease with normal serum calcium, phosphorus and alkaline phosphatase contents. Osteoporosis may be subdivided as follows:

genetic:

- osteogenesis imperfecta group
- Ehlers-Danlos syndrome
- fragilitas ossium

physical:

radiation

nutritional:

- scurvy
- immobilization and disuse

endocrine:

- hypopituitarism
- acromegaly
- hypothyroidism
- Cushing's syndrome
- postmenopausal and eunuchoid forms.

Osteosclerosis:

This condition is caused by increased osteoblastic activity. Causes of and syndromes associated with osteosclerosis are: genetic osteopathia striata and osteopoikilosis, trauma, radiation, hypopituitarism, fluorosis, vitamin A intoxication, hypertrophic pulmonary osteoarthropathy (as well as the idiopathic forms of "clubbing"), metastatic tumors. Osteosclerosis may also result from decreased osteolytic activity. Osteopetrosis and the skeletal changes associated with erythroblastosis and heavy metal (Pb, Bi) deposits belong in this group.

Osteitis fibrosa: This condition results from increased osteolytic activity. Severe innation hyperparathyroidism of both primary (hyperplasia, adenoma) or secondary (renal calcium loss with compensatory parathyroid hyperplasia) types and severe hyperthyroidism may cause this picture. Paget's disease and metastatic tumors are also in this group .



**3. Disturbances of deposition of apatite crystals.** There are two main clinical syndromes in this group. **Rickets** occurs only in the growing individual and is associated with epiphyseal swelling, costochondral swelling and demineralization of matrix. **Osteomalacia** is the adult form and is characterized by costochondral swelling, Milkman's fractures and generalized demineralization of bone. Low serum calcium and phosphorus levels as well as a high serum alkaline phosphatase activity are characteristic of both rickets and osteomalacia. Urinary calcium excretion is reduced. Vitamin D deficiency is the cause of both diseases. Dietary deficiency or decreased absorption of calcium and phosphorus (see under calcium and phosphorus metabolism) may also result in clinical rickets or osteomalacia. Not uncommon causes of absorption defects are mineral oil overdosage, steatorrhea and chronic pancreatic disease. Any of these factors must be operative for at least two years before skeletal

changes can be expected to appear. Excess excretion of calcium and phosphorus due to chronic renal disease as well as certain rare renal tubular defects (phosphate diabetes or D-resistant rickets, Fanconi syndrome and renal tubular acidosis) also cause rickets and osteomalacia.

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# THE PHYSICIAN IN COURT

*J. L. McCARREY, Jr., United States District Judge  
District of Alaska, Third Division  
ANCHORAGE*

In every personal injury case the testimony of the doctor or physician is of utmost importance, not only to the jury which must render a verdict to allow or disallow damages to the injured party, but to the Court as well, whose duty it is to preside over the trial proceedings and make a judicial determination on the admissibility of evidence and other matters. The testimony of the medical witness is given great weight by both jury and the Court, not only because of his minute familiarity with the facts concerning the injury but also because of his special academic qualifications. It is he alone who can rightly inform the Court and jury as to the extent of the injury as well as ancillary damages, i.e. emotional disturbances, pain, suffering, period of recuperation, residual impairment, etc., which each injury has wrought. Again, the medical witness must totally evaluate those cases where subjective opinions are the only evidence from which a verdict or judgment can be rendered. Thus, the role of the medical witness is never underestimated by counsel, parties, jury or the Court.

With this as a brief background of the courtroom setting, the medical witness can well appraise his role during the trial.

It has been my experience that most doctors come to the courtroom reluctantly but I have known of those who have testified willingly and extensively, knowing well in advance what is expected of them in the courtroom. The reluctant doctor witness should not be the case once the doctor is fully acquainted with courtroom procedures and is discerning to limit his testimony to the facts in issue and to those fields wherein he is eminently qualified to give expert



testimony. On occasion, however, I find that the younger doctor witness is easily led by the skilled attorney into realms of conjecture, principally based on the premise that the witness, being an expert, will reach for the opportunity to display his unlimited knowledge on all phases of the medical world, oftentimes to his chagrin, since, once the expert evidences a limited knowledge in a particular category, the prepared attorney who has sprung the well-planned stratagem can now lure the expert into other areas of the medical field wherein the expert is not specialized. There the doctor can frequently be discredited even in that portion of his testimony that was based upon training and qualification. This artful chicanery is used skilfully on all novice experts regardless of their fields. Certainly in this day and age of specialization the populace will not cease patron-



izing the heart expert because they observed in court recently that he had limited knowledge about the psychological reaction of the dog Rover who had just been brought out of orbit in Explorer X. Yet during the past several years I have observed certain experts who delved into the conjecture simply, in my humble opinion, because they are afraid someone within the realm of their voices may conclude their inadequacy if they do not attempt an answer. I am certain no friends, and certainly no patients, are lost when the expert simply states "I don't know. That is a question outside of my specialty and you will have to give that question to Doctor so and so."

In our daily lives, because of the tempo of business and mankind and due to the general shortage of professional men and women, the Court and counsel have always strived to hear the medical witness promptly when he arrives. That has been my practice and observation. However, I would suggest that the doctor immediately make known to counsel calling him of his arrival. Generally counsel will ask to call him forthwith to the witness stand. Upon being called, the expert should go directly to the clerk of the court who is always seated directly in front of the bench, raise his right hand to the square and take the oath administered by the clerk and/or judge. It is well to look directly toward the person administering the oath since side glances, the shuffling of papers or the adjusting of one's clothes tend to lead the Court, jury and other interested observers to believe that the oath is a formality but of no importance as far as that witness is concerned. The doctor should next proceed directly to the witness stand which will be pointed out to him by the clerk or Court and immediately be seated. He can, and should, take his reports, films and any other information that he intends to testify from or about. This will save his and the Court's time when it becomes necessary for him to refer to them during his testimony.

It must be remembered by the doctor witness that the relationship between him and the Court and the relationship between him and the examining attorney is obviously different, though un-

der the supervision of the Court. The Court will attempt to curb the overanxious new counsel who is trying his first big personal injury suit, from propounding questions dealing with matters outside the realm of the particular controversy. The Court must also attempt to restrain the overanxious or inexperienced medical witness who attempts to wander into matters that may be interesting to him and in fields which he is well qualified to testify regarding, but which are not germane to the subject under consideration.

When the doctor is basically correct in his direct examination, the cross-examination usually becomes very limited, but once he allows himself to be drawn into an outer sphere, the road back to reality may become tortuous and delayed.

Ofttimes the medical witness is asked to give a yes or no answer. This is very perplexing to the witness who finds his answer not quite that simple. He should remember that the sponsoring attorney will have another chance to let him explain his answer or, if he feels that an explanation is paramount at that time, he can always ask examining counsel to let him explain, or he may appeal to the Court for that privilege, and within the rules the request will usually be granted. The Court and counsel are fully aware of the complexities in medical science. Therefore, pertinent explanation of the medical witness should be full.

While the courtroom proceedings may not be the desired part of a doctor's practice, he should bear in mind that the only way in which a person injured through the negligence of others can generally obtain redress is under the law. In many instances the only means of redress is through the testimony of the doctor. Therefore, in order that justice may be obtained, it is imperative that impartial cooperation should exist between the medical and legal professions.

It has been my good fortune to observe excellent cooperation between the two professions during the past five and one-half years that I have been on the bench. With this as a background, I am confident this same cooperation will continue.



# THE DOCTOR AS A WITNESS

*ALBERT MAFFEI, LL.B.*

ANCHORAGE

As used in this article, "Witness" has reference to those who appear and testify, and give evidence before a judicial tribunal.

One of the duties which a citizen owes to his government is to support the administration of justice by attending its courts and giving his testimony whenever he is properly summoned. It is, of course, the duty of every witness to attend, as long as commanded, and to testify to all material facts within his or her knowledge.

A witness may either appear voluntarily, when called by a litigant or his counsel, or by order of court, through process entitled a 'subpoena'. A witness who appears by arrangement of litigant or his counsel may appear at a time designated by counsel, whereas witness under a subpoena may appear at the time and place set forth in the subpoena. This, I believe, is important to the members of the medical profession since not only is their time valuable but is also limited.

Even in cases where a subpoena is served, a witness is not always obliged to attend, especially if he or she is to testify at a place distant more than one hundred (100) miles from the place where the witness resides, or at which he or she may be served with the subpoena, unless the court endorses on the subpoena an order for the attendance of the witness. In this instance the witness must also be paid his expenses and witness fees. However, except for the circumstance hereinabove cited, and in circumstances such as sudden illness, or other compelling reasons, the witness is required to appear and refusal to appear and testify after a subpoena has been issued and served upon the witness is punishable by contempt of court, and the court may order the issuance of a warrant of arrest for the witness and have the witness taken into custody by the proper law enforcement authorities. Also, a witness disobeying a subpoena duly served may be required in a civil action to forfeit to the party calling him or her, the sum of Fifty Dollars (\$50.00) and all damages which the party may sustain by failure of the witness to attend. The foregoing, of course, is peculiar to Alaska and is according to Alaskan law.



In the foregoing paragraph, a witness required to attend by service of a subpoena, at the time of service of the said subpoena, must be tendered his witness fees plus mileage. The witness fees, at the present time, are Four Dollars (\$4.00) per day, plus twenty cents (20c) per mile from either where the witness is served or where he resides to the court room, or other place designated in the subpoena.

In the event that the witness appears on pre-arrangement with counsel or his litigant, he or she will, of course, be instructed as to when and where to appear and also whether or not to bring documents, reports or photographs, and in most cases the witness will be interviewed by counsel for the witness calling him or her prior to the time set down for the attendance of the witness.

Where the witness appears under subpoena, however, he has generally had no occasion to talk to the counsel and unless otherwise instructed he or she should appear at the time and place set forth in the subpoena. If the subpoena indicates that the witness is to bring with him or her any records, files or documents, they should be with the witness at the time he or she appears in court. This type of subpoena is entitled a "subpoena duces tecum."

Upon appearing in court the witness should check in with the deputy clerk or the bailiff so that the court and counsel will know that the witness has appeared pursuant to the subpoena. The witness will then be instructed to either remain in the general court room, or in the event



that witnesses are excluded, then the witness will take his or her place in the adjoining hallway or witness room designated by the bailiff.

A witness is generally called by the counsel, if the witness is in the court room, or if the witness is in the adjoining hall or witness room, then the witness will be called by the bailiff. The local rules for the District Court for the District of Alaska provide that they remove their topcoats, and if the witness is a man, his hat, before entering the court room and taking the witness stand. When the witness is called, he or she is first duly sworn before the "in court" deputy, who sits directly in front of the presiding judge. Here the witness raises his or her hand and swears that his testimony will be the truth. The witness then takes the stand and answers the questions asked by counsel who has called the witness. Generally, the first questions are identifying questions, that is, witness is asked his or her name, occupation or profession and address. Since the medical witness will generally be called to testify as an expert, he or she must first be proven qualified; therefore, the medical witness will generally be required to give his or her previous educational background and medical training.

The witness should always remember that in a court record the court reporter is taking down the testimony verbatim and therefore any answers should be clear. As medical witnesses will generally testify using technical terms and words not commonly used in ordinary speech, it may be necessary for the witness to properly spell out the words for the benefit of the court reporter. Due to the technical nature of the testimony, the medical witness may also use photographs or diagrams in order to clarify points to both the court and the jury.

Regardless of the number of counsel in the case, the witness will be examined by only one counsel at a time, and that counsel will generally be entitled to complete his entire examination before questions are asked by the other counsel. Generally the witness must testify to all material facts within his or her own personal knowledge, and as the testimony of the medical witnesses is generally of a highly technical nature and of a nature within the exclusive knowledge of the medical profession, the said medical witnesses are entitled to give their own opinions based on this peculiar knowledge.

In this article I do not intend to discuss the matters which pertain to privilege, or admissibility of evidence, as these will depend upon the peculiar circumstances of every trial or hearing. However, I should state that the witness may NOT refuse to answer a question, nor may the witness refuse to testify, except under unusual circumstances such as where the answer would be self-incriminating. When a question is asked by counsel and objected to by other counsel, the witness should refrain from answering the question until such time as the court has ruled on the objection, and if the objection is overruled the witness may answer, or, if the objection is sustained, the witness will NOT answer the question. A witness may, of course, at any time request a clarification of the question from the counsel asking the question. All answers should be direct and should be in answer to the question asked, the witness refraining from digressing into other points or facets of the case.

If the medical witness is not asked questions which he or she thinks are pertinent to the case, then the witness should address the court and request the privilege of submitting this information.

After the witness has testified he or she will again take his or her position in the court room, adjoining hallway or witness room, unless excused by the court.

Before closing I wish to impress upon the medical witness that due to the nature of their knowledge, their testimony may be the controlling factor in most cases, especially in such as personal injury or workmen's compensation cases. Therefore, although the medical witness may wish to refrain from testifying, he or she should remember that his testimony is of such importance that it may determine whether one or the other of the litigants is successful in winning a verdict or judgment.

I should also like to impress upon the medical witness that as their time is valuable, they should always discuss their appearance with the counsel so that the said counsel may arrange for a satisfactory time for their appearance so that their testimony may be heard, if possible, at the convenience of the medical witness.

I realize that the foregoing is elementary to most witnesses, however, it covers most of the basic fundamentals regarding the appearance of a witness. ●



# THREE YEARS OF VOCATIONAL REHABILITATION WITH ALASKAN MENTAL PATIENTS\*

**J. RAY LANGDON, M.D.**

*Assistant Chief, Section of Mental Health,  
Division of Health, State of Alaska*

ANCHORAGE

This report covers the first three years of formal effort devoted to vocational rehabilitation of mental patients although sporadic attempts had been made earlier. With the assignment of an Office of Vocational Rehabilitation counsellor in the Seattle-Portland area in March, 1956, the staff of Morningside Hospital in Portland, Oregon, attempted to formulate referral procedures and recommendations. Although the effort was purely clinical, the lack of much knowledge anywhere about this topic plus the fact that no similar efforts had been made with Alaskans necessitated empirical and investigative methods to some extent.

The specific personnel directly involved in the study changed in both the vocational rehabilitation and hospital parts. Three different vocational rehabilitation counsellors were participants, the first being active for a year and a half, the second for approximately a year and the third for the last six months of this report. The hospital medical director remained as such for the first year and a half, then was present at the hospital for an additional six months. The present medical director arrived at the hospital for the last year and a half of the report. Thus the efforts and results are shared in by a number of different persons, which may or may not cancel out the different effects of their own personalities. During the first part of the program discussions and referrals were almost entirely made on an informal basis between the OVR counsellor and the hospital medical director. However, from the beginning the counsellor was free to and actually did informally discuss various aspects of the patients' problems with any of the hospital personnel—medical, nursing or ancillary. During the latter part of the first year a specific vocational committee consisting entirely of hospital personnel was established to evaluate and rec-



ommend intramural vocational assignments and from this group eventually developed opinions about OVR referrals and their possibilities. Toward the end of the second year a more formal vocational rehabilitation conference was established with the participants including the hospital medical director, the OVR counsellors and essentially the members of the hospital vocational committee. Thus the technique of discussion and referral was evolved in a manner somewhat similar to that which has been done with chronic physical illnesses such as tuberculosis. Ultimately the specific referral must still be made by the hospital medical director and accepted by the OVR counsellor, but the concept of conference and discussion makes these technical parts merely a final detail.

\*Presented at the 10th Annual meeting, Alaska Chapter, American Association for the Advancement of Science, Juneau, Alaska, August 27, 1959.



At the outset, as neither the counsellor nor the medical director was greatly experienced in dealing with each other's discipline, some empirical formulae were devised before the early referrals. Among these were:

(1) An attempt would be made to refer patients whom the hospital felt would have the best chance of achieving success. This in effect limited the referrals to relatively young persons with in many cases physical handicaps in addition to their mental ones.

(2) It was agreed until the program was well established referrals would not include mentally retarded patients.

Almost from the beginning exceptions were made in the first category, but the second was rather closely adhered to until late in the third year.

Vocational planning was handicapped to some degree by the fact that the vocational counsellor was neither physically present in the hospital at all times nor even in the same city most of the time. This necessitated his reliance upon local agencies such as the U. S. Employment Service, whose main interest was definitely in persons other than Alaskans. Moreover, at that time the hospital had no social worker to assist between visits of the counsellor so that the contacts with the hospital were done mainly by the hospital psychologist. It was necessary to determine training possibilities, schooling possibilities, protective or sheltered workshop type of placements as well as ordinary job possibilities within the Portland and Seattle-Tacoma areas, so that patients so placed could continue under the general surveillance of the hospital. The chief assistance in on-the-job training and noncompetitive placement was Goodwill Industries of Portland, which was at the same time attempting to shift its emphasis from terminal placements to training of handicapped persons. No other agency in the Portland area was willing to make this attempt, though some such as St. Vincent DePaul were willing to accept an occasional terminal placement.

The accompanying tables demonstrate first the total number of patients referred, their average age range and stay in the hospital, and the

results in terms of their OVR status, the hospital status (whether discharged, boarded out, on convalescent leave, or in the hospital) and their employment status. It is noted that there is one death in this record, which occurred after selective job placement and after the patient left the hospital on convalescent leave. Certain other patients who were initially referred were ultimately closed from referral without OVR action either because the patient refused services or relapsed before services could be initiated or were felt to be inappropriate referrals by the counsellor. It is noted that the employment status is different from the hospital status because some of those employed still lived within the hospital while they worked outside, while others who have successfully left the hospital are still unemployed. The second table shows a similar breakdown with specific disease entities noted. Approximately half of the patients referred were schizophrenic and the remainder were scattered among different diagnoses. Although the initial plan was to refer the most eligible patients, the emphasis gradually shifted toward more and more chronic patients, these being mostly schizophrenics. Probably this shift was assisted by increasing acceptance on the part of Goodwill Industries of our hospital patients, and may also have been influenced by the generally depressed economic conditions in the Portland area at that time, which precluded ordinary job placement. It is likely that an additional factor was the increasingly hopeful attitude of the hospital staff as well as the OVR counsellors toward some of these long-term patients. Several patients during the second and third year were referred for training in the Seattle-Tacoma area, ranging from actual high school programs to specific vocational and craft objectives such as carpentry. At the end of this period only one or two patients had actually completed a training program, but several were still in process.

Certain difficulties were encountered. One of the anticipated difficulties, that of acceptance of outwardly normal appearing persons as being handicapped, did prove true in many cases. Employers who were thoroughly briefed as to patients' difficulties as well as assets and who had accepted this prior to employing the patient generally had few difficulties and when they did, made extraordinary efforts to cope with these difficulties before admitting failure. As might be

expected, employers who were not well prepared and had little understanding had very little success with patients of any disease category who fell under the general term mentally ill. Even considering the length of time before such placements were attempted there were still many difficulties involved in training or job placement

to the various psychiatric hospital therapies as well as patient morale. It seemed apparent to hospital personnel that this effect extended not only to the patients referred but also to those who had no hope of referral and also to those who had no need of referral. In addition, the presence of this type of program caused noticeable shifts

#### STATUS OF MENTAL PATIENTS REFERRED FROM MORNINGSIDE HOSPITAL TO OVR AFTER 3 YEARS

Diagnosis	No. of Patients	Admission Age Range	Ave.	Length of Hospitalization Range	Ave.	Employment Status	No.	Hospital Status	No.
<b>TOTAL REFERRALS</b>	41	5-59	43	2mo.-29yr.	4-5yr.	Discharged .....	Employed ..... 7	Discharged	16
							Unemployed .... 9	Leave .....	8
						Leave or Board ..	Employed ..... 9	Boarded Out	5
							Unemployed .... 4	In Hospital	11
						In Hospital .....	Employed ..... 6	Deceased	1
							Unemployed .... 5		
						Deceased: (leave, unemployed)	1		
<b>Organic Disorders</b>	5	5-48	10	2-29yr.	10yr.	Discharged .....	Employed ..... 1	Discharged	2
							Unemployed .... 1	Boarded Out	1
<b>Psychotic Disorders</b>						Leave or Board ..	Employed ..... 2	Leave .....	1
Involutional Psychotic						(died)	Unemployed .... 1	Deceased	1
Reaction .....	3	50-56	52	1-2yr.	3/2yr.	Discharged .....	Unemployed .... 2	Discharged	2
						In Hospital .....	Unemployed .... 1	In Hospital	1
Affective Reaction .....	2	34-59	46	2mo.-3yr.	2yr.	Discharged .....	Employed ..... 1	Discharged	2
							Unemployed .... 1		
Schizophrenic Reaction	21	16-51	30	6mo.-25yr.	6yr.	Discharged .....	Employed ..... 2	Discharged	4
							Unemployed .... 2	Leave .....	4
						Leave or Board ..	Employed ..... 5	Boarded Out	3
							Unemployed .... 2	In Hospital	10
						In Hospital .....	Employed ..... 6		
							Unemployed .... 4		
<b>Psychoneurotic Disorder</b>									
Depressive Reaction ....	4	18-56	40	3-11mo.	7mo.	Discharged .....	Employed ..... 3	Discharged	4
							Unemployed .... 1		
<b>Personality Disorders</b>									
Personality Pattern ....	2	20-21	20	2-8mo.	5mo.	Discharged .....	Unemployed .... 1	Discharged	1
Disturbance						Leave .....	Employed ..... 1	Leave .....	1
Personality Trait .....	3	16-19	17	6mo.-3yr.	16mo.	Discharged .....	Unemployed .... 1	Discharged	1
Disturbance						Leave or Board ..	Unemployed .... 2	Leave .....	2
<b>Mental Deficiency</b> .....	1		18		16yr.	Board Out .....	Employed ..... 1	Boarded Out	1

for the patients at a considerable distance from the hospital. This necessitated multiple types of support from the OVR counsellor and probably was much more time consuming to him in his solo capacity than would have been the case if the various hospital personnel were also on hand to assist as difficulties arose.

In conclusion, the presence of a vocational rehabilitation program was definitely an assist

in attitudes of the hospital personnel, especially those in the ancillary fields and in the nursing areas such as attendants. Numerous observations and suggestions were made by these persons and it is possible that some of the beneficial effects on patients not directly touched by the program were due to the changes in attitude of the hospital personnel. ●



# BLOOD ALCOHOL, YOURS AND MINE\*

MICHAEL BEIRNE, M.D.

ANCHORAGE

Hootchino! Hootchino to all of you!\*\* There are many, many people who have a keen interest in the subject of alcohol, and as I look amongst the audience this morning I am led to believe that many people have a working knowledge of this subject as well. Most everyone talks about alcohol. Most people think a little bit about it and most people like it. It is the abuse, not the use, that makes it dangerous. Lydia Pinkham gained fame and wealth with her magical pink elixir. Today we have Hadacol, boon to the oppressed. But in whatever form you get the booze, it can still make a fellow intoxicated—and that brings us around to our subject of blood alcohol levels and the medical and medico-legal implications.

You may want an alcohol study done because of a head injury, or coma, or for medico-legal reasons. If for medical reasons then no special permission is required. However, if for medico-legal reasons then you must have a signed and witnessed permit in which the patient agrees to having his alcohol level determined. If the patient is deceased then the next of kin or the United States Commissioner would give permission.

Laboratory techniques in general are designed to measure amounts of alcohol present in either the breath or fluid. The breathing bag is in common use in many police stations. It is fairly accurate, is more qualitative than quantitative but is acceptable legally depending upon the operator's skill. It tells whether the alcohol is over or under the legally acceptable limits.

Body fluids are analyzed quantitatively. In my laboratory the Kingsley and Current method (1) is in use. A simple green color is produced, the intensity being proportionate to the amount of alcohol present, and reduplication is excellent. Standardization of this procedure is of utmost importance and cannot be overemphasized. A control must accompany every test.

Blood is the common fluid submitted to the laboratory. However, urine is equally as good, in some respects better, and is more easily obtain-



able. Spinal fluid can be used also. Tissues, particularly brain, are satisfactory for analysis since alcohol diffuses almost equally throughout all body tissues and fluids. One should be careful not to clean the skin with alcohol prior to venipuncture since this could alter the results slightly although not significantly according to multiple studies (2).

The following guide for interpretation of blood alcohol concentrations is modified from Gonzales et al (3)..

Alcohol mg. %	Clinical Findings
0	Telling the truth.
50	Normal by ordinary observation. Reaction time slowed.
150	50% of people clinically intoxicated. Legally "under the influence".
300	Very intoxicated. Confused to stuporous.
400	Coma. Anesthesia, etc.
500	Most people die.

Normally there should be no alcohol in the blood stream, but some reducing substances are present so that a reading of less than 15 mg.% can result in a normal person. At 35 mg.% the average person will show definite impairment of his driving ability by special tests, and studies show that it takes two 12-ounce bottles of 3.2 % beer, or two ounces of 100 proof whiskey, consumed within one hour to put the average moderate drinker in this zone (4). Three beers or three shots will give a 50 mg.% level and most everybody suffers

\*Delivered at the Alaska State Medical Association 14th Annual Meeting in Juneau, March 20, 1959.

\*\*Editor's Note: Old Alaska Greeting. For origin, see concluding paragraph.

significant deterioration of his driving skill at this concentration. However, the law is very generous in this respect and the person is legally determined to be under the influence of alcohol only when a result of 150 mg.% or higher is submitted (5). About one-half of the people will be clinically intoxicated at this level. Everyone reacts differently to alcohol, the young and the old, the shy and the bold. And it is a well-known general biological law that individuals vary in the amount of a pharmacologic agent required to produce a given effect.

When the blood level reaches 500 mg.% most people will die (6). If death is sudden the mechanism is by respiratory failure. However, death need not ensue at the height of the blood alcohol concentration but can follow hours or days later, due probably to irreversible and progressive central nervous system injury. In such cases diagnosis may be difficult since the blood alcohol determination may be negative and the anatomical changes in fatal acute alcoholism are not diagnostic.

It takes about one pint of whiskey consumed over a two-hour period to give a 400 to 450 mg.% blood level. The poor fellow who chug-a-lugs the whole bottle, as a young soldier did last year when double-dared, doesn't have a chance.

The diagnosis of drunkenness is a clinical diagnosis and may be supported by laboratory findings. The physician testifies to intoxication; the laboratory helps to identify the toxin. Actually we are not interested in drunkenness as such but rather in a person's ability to carry out a complicated and finely coordinated task such as driving a car.

Alcohol is readily absorbed throughout the entire GI tract. Food slows the rate, but the higher the concentration in the GI tract, the more rapid the absorption. The metabolism of alcohol is extremely interesting in that the rate of metabolism is very steady and is affected by only a few conditions and then only to a slight degree. This rate is at the level of 15-20 mg.% per hour (7). This is a most significant fact because on the basis of this, higher blood alcohol levels may be predicted using the time elapsed between the last drink and the taking of the specimen. For example, if at 2:00 o'clock this morning, down at the Red Dog Saloon, one of you had a blood alcohol level of 250 mg.% (and I don't think this would be a too far-fetched hypothesis) and it is now 10:00

a.m., then the blood level would be approximately 100 mg.%, figuring eight hours elapsed time at 15-20 mg.% per hour being metabolized. If you were doing surgery at 8:00 o'clock this morning, your blood level would be approximately 130 mg.%—in other words you would be almost clinically drunk. But of more importance yet is the fact that your reaction time and your judgment would be tremendously impaired. A man can metabolize about one ounce of whiskey per hour if he's lucky. Beirne, working independently in a series of one case, does not consider himself lucky.

I should mention a number of errors that may develop with laboratory testing of alcohol and in the clinical diagnosis of alcoholism. The physicians should remember that he is making the diagnosis, not the laboratory. In severe cases of diabetes the high degree of acidosis may give a false positive alcohol level. Blood or body fluids that have deteriorated also may give false positives. Methyl alcohol gives a positive reaction just like ethyl alcohol. Cleaning the skin with alcohol, or the use of dirty containers, are other sources of error. Then there is the possibility of laboratory error which, heaven forbid, does happen.

Finally, in closing, I am going to tell you about a great Alaskan contribution to American literature. In 1867 when Alaska became American Territory, U. S. Army troops stationed here made booze from sugar and flour and the natives called it "Hootchinoo." During the gold rush days this term was shortened to hootch. So hootch to you. Happy hootching.

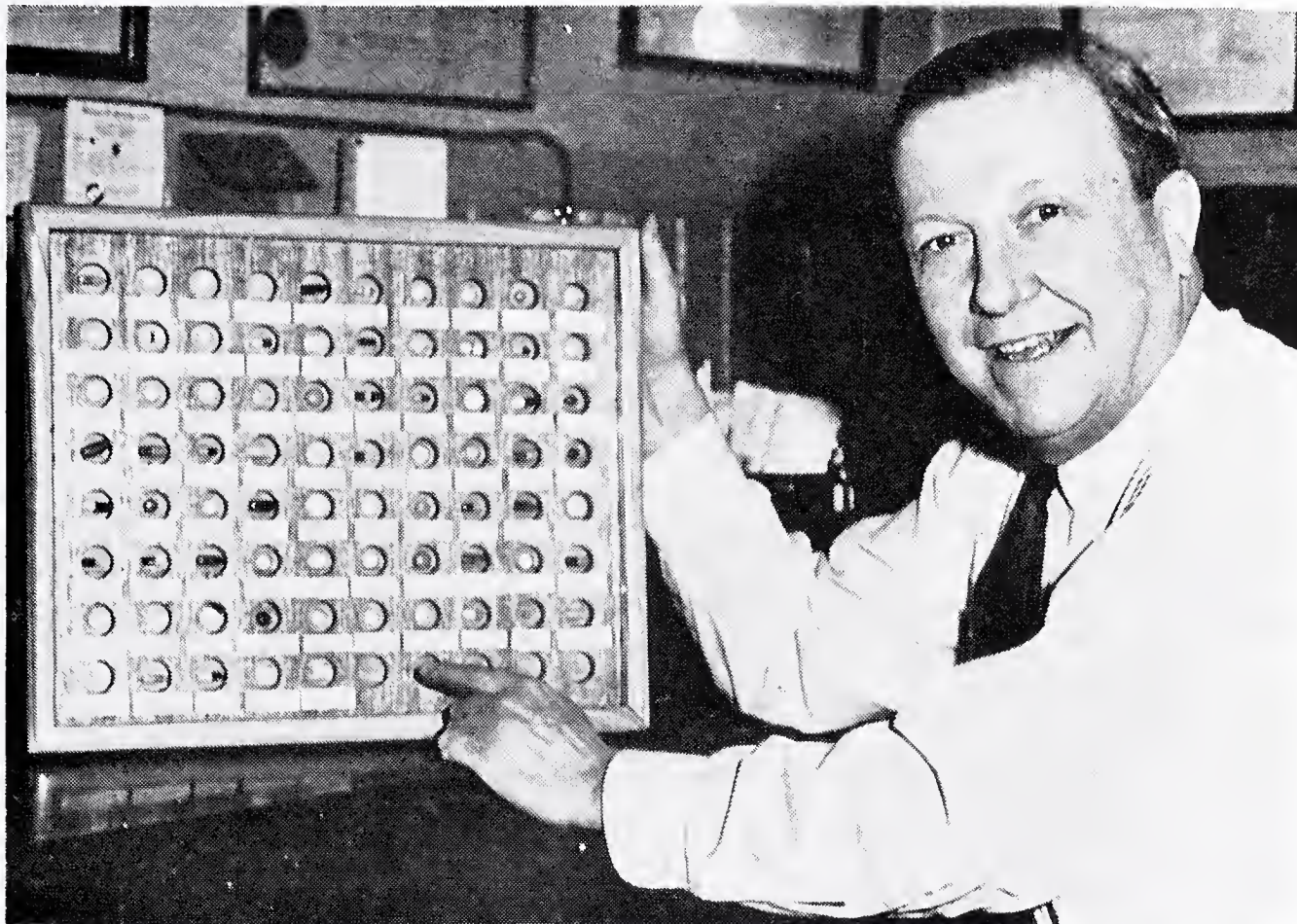
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# Feature Section

## A Handy Device For The Identification Of Medications



**Dr. William M. Whitehead, immediate past-president of the Alaska State Medical Association, with the "medication identification board" originated by him.**

Frequently patients come to the doctor's office with medicine that has been prescribed elsewhere and the patients usually are not aware of what the medicine is. Just as frequently, it seems, patients will have run out of their medication and be unable to tell the doctor what it was, or even furnish an accurate description of whatever they might have been taking. Faced with this recurring problem, as all doctors are, Dr. William Whitehead of Juneau conceived the idea for a "medication identification board." He mentioned his idea to Mr. Gordon Munger, Alaska representative for Parke, Davis and Company, who volunteered to make the board for him. The offer was quickly accepted and now Dr. Whitehead's board is a reality!

The board is mahogany and measures 13 by 16 inches. There are 80 holes, each 13/16th of an inch in depth. One drop of Duco cement was placed in the center of each auger hole and with the aid of a hemostat the pill or capsule was centered on the glue. Typed labels, giving the name and amount of the medication, are affixed with Scotch tape, this affording an easy method of replacement when changes are desired. The board is hung on the wall of Dr. Whitehead's office, as a picture would be, so that it may be referred to readily by patients and the doctor.



# *Women's Auxiliary*

*A news column compiled by*

**Mrs. Vernon Cates**

## **STATE COMMITTEE CHAIRMEN APPOINTED**

The following committee chairmen have been appointed by Mrs. Francis Phillips, president of the Women's Auxiliary to the Alaska State Medical Association:

American Medical Education Foundation: Mrs. Arthur Schiabe, 822 Northward Boulevard, Fairbanks.

Civil Defense: Mrs. Michael Beirne, 918 Tenth street, Anchorage.

Community Service: Mrs. Robert Johnson, Kodiak.

Legislation: Mrs. C. E. Chenoweth, Mt. McKinley Bldg., Anchorage.

Paramedical Career Recruitment: Mrs. Paul Haggland, c/o Fairbanks Clinic, Fairbanks.

Mental Health: Mrs. William Whitehead, 614 Harris street, Juneau.

Safety: Mrs. J. B. Deisher, Seward.

Convention Chairman: Mrs. Vernon Cates, 2015 Wildwood Lane, Anchorage.

## **AUXILIARY NEWS**

### **Fairbanks**

Mrs. James J. Lundquist was recently elected chairman of the Fairbanks Medical Auxiliary for the coming year.

The potluck dinner to raise money for A.M.E.F. was such a success we plan to do it again next winter. We are also planning a summer barbecue, the profits to be used for the same purpose.

### **Anchorage**

The Anchorage Medical Society Auxiliary, having completed its first year of organization,

nominated and elected officers for the ensuing year. They are as follows: President, Mrs. J. J. Fitzpatrick; vice-president, Mrs. J. H. Shelton; recording secretary, Mrs. William Maddock; corresponding secretary, Mrs. Rodman Wilson; treasurer, Mrs. Perry Mead.

Although much of our time in the past year was absorbed in organizational work we did participate in a number of planned programs and projects.

Our programs consisted of speakers from the Anchorage Medical Society; from P.A.R.C.A. (Parents' Association of Retarded Children in Alaska) outlining the aims and purposes of their new organization; from the Health Department on the possibilities of a rehabilitation program in this area; and representing the Juvenile Department of the Greater Anchorage Area, three officials discussed the problems of juvenile delinquency. A group civil defense meeting with the medical society has been planned.

P.A.R.C.A. was selected as our yearly project and in order to raise money the Auxiliary held a Christmas Confection Bazaar, which succeeded beyond our expectations. Holiday recipe folders, containing the favorite recipes of Auxiliary members, were designed, made, decorated and sold; and various members helped to decorate and sell the P.A.R.C.A. Christmas candles. A piano was purchased for P.A.R.C.A. with the profits of the bazaar. Another project of periodic collection of unused drug samples, from local physician's offices, for distribution to hospitals of physicians in outlying areas of the state, was started this past year. This project will be a continuous one. Members of the Auxiliary have been appointed to follow the action of the State Legislature, the Rehabilitation program and the Citizens Juvenile Action Committee.



Cash donations were made to the Science Fair and to the Cancer Society.

On the social level the Auxiliary held, other than the monthly meetings, a smorgasbord dinner which included the Medical Society. A Christmas luncheon at which each guest received a Christmas corsage and an earring exchange was held. At the request of the Lederle Laboratories, the Auxiliary planned the wives' events for the Lederle Symposium held in Anchorage during the annual Fur Rendezvous in February. The program consisted of morning registration and coffee hour followed by a luncheon for the physicians and their wives. Eskimo dances and other Rendezvous events comprised the afternoon program. An evening reception was held with the Rendezvous Pageant and Ball following later.

### **THE AMERICAN MEDICAL EDUCATION FOUNDATION**

**What Is A. M. E. F.?** The American Medical Education Foundation is a non-profit, tax-exempt organization established in 1951 by some leaders in medicine to collect money from physicians and their wives for the support of the nation's medical schools. There is a similar organization to collect funds for that purpose from businessmen and corporations.

The A. M. E. F. is sponsored by the A. M. A.; and the A. M. A. pays all of its operating costs. Every dollar contributed goes to the medical schools.

**What, Exactly, Does A. M. E. F. Money Pay For?** It helps finance the teaching programs of the 85 approved medical schools in the country. The schools themselves determine where the

money is most needed. It may be used for modern teaching equipment, for salary increases so that the schools may keep teachers who would otherwise be forced to leave, or for the establishment of new departments so that the schools may keep abreast of scientific advances.

**Why Do American Medical Schools Need Financial Help?** Student tuition pays only 18.2 per cent of the cost of the student's medical education, and postwar inflation, combined with the great changes that have taken place in medicine, has caused the schools' expenses to soar. Private support must be forthcoming, or the schools will be forced to turn to the federal government for help.

**Why Should the Doctor and His Wife Give?** The doctor, through the Medical Society, and his wife, through the Auxiliary, must lead the way if other people are to feel the urgency.

**How Much Money Has Been Contributed?** Each year since its inception in 1951, the A. M. E. F. has contributed one million dollars to the nation's medical schools.

**What Is the Auxiliary's Role in A. M. E. F.?** Each year the Women's Auxiliary increases its interest in A. M. E. F. Through its various activities—benefits, memorials, articles made for sale and direct gifts—the Auxiliary works hard at raising money for the nation's medical schools.

**How Can I Help?** Participate in your Auxiliary's A. M. E. F. activities. Give to A. M. E. F. (you may earmark your contribution to the school of your choice). Individual contributions should be made through your local or state A. M. E. F. Chairman. Your help is needed now!



# *Muktuk Morsels*

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

## **GENERAL**

### ***Annual Alaska Cardiac Clinic:***

The second Cardiac Clinic is scheduled for September 6th at Sitka, and for September 8th through the 11th in Anchorage. Four members of the cardiac team from Stanford University Hospital in San Francisco, California will conduct these clinics and will include Dr. Frank Gerbode, a cardiac surgeon, and Dr. Herbert Hultgren, an internist, interested particularly in cardiac and respiratory physiology, who were members of the team last year. Dr. Saul Robinson, a pediatric cardiologist, and Dr. Herbert Abrams, a radiologist, are new additions to the team this year. These diagnostic clinics are operated in conjunction with the United States Children's Bureau open-heart surgery program, and are a cooperative endeavor of the Alaska Department of Health, the Alaska Heart Association, and the Alaska Native Health Service. Approximately 20 children and adults with both congenital and rheumatic heart disease are scheduled to be seen in Sitka; about 80 in Anchorage. Many of the patients attending the Anchorage clinic will be coming from the northern and central part of the State, from Fairbanks to Point Barrow. All physicians in Alaska are invited to attend the clinical sessions of these clinics as well as the formal teaching sessions, which are scheduled for each day. Patients evaluated at last year's clinic have been subsequently operated on at Stanford University Hospital, the University of Washington in Seattle, the United States Public Health Service Hospital in Seattle, and at the National Heart Institute in Bethesda, Maryland.

### ***Trudeau Society:***

An Alaska branch of the American Trudeau Society was formed during August, 1959, with Dr. Francis Phillips serving as president; Dr. Jose Silva, Medical Officer in Charge at the Anchorage U.S.P.H.S. Hospital, as vice president; and Dr. Ernest Gentles of the Tuberculosis Control Division of the Alaska Department of Health, as secretary-treasurer.

## ***Neuromuscular Disease Clinics:***

Approximately 40 children with various childhood neuromuscular disorders were seen at a two day clinic sponsored by the Alaska Crippled Children's Association, the Elks' Cerebral Palsy Fund, the Alaska Department of Health, and the National Foundation on July 8th through the 10th in Anchorage. Dr. M. A. Perlstein, of the Children's Neurology Service at Cook County Hospital, Chicago, served as consultant. Several weeks later, Dr. Joseph M. Foley, of the Neurology Service at Boston City Hospital, serving as a consultant for the Air Force, held a three-day adult neurology session in Anchorage.

The Alaska Division of the American Association for the Advancement of Science held its 10th Alaskan Science Conference in Juneau from August 25th through August 28th. The primary purpose of this meeting was to promote the exchange of information among investigators concerned with scientific research in Alaska and other northern areas. Sections on Agriculture, Anthropology, Biology, Engineering, Fisheries, Forestry, Geology and Geography, Geophysics, Medicine and Public Health, and the Social Sciences were represented. The president and general chairman of these sessions was Dr. Norman J. Willimovsky of the Bureau of Commercial Fisheries in Juneau, Alaska. Dr. Robert Whaley of Anchorage was chairman of the Medicine and Public Health Session, which included a panel discussion on the nutritional status of the Alaska Eskimo, with Drs. George Mann, Edward Scott, and Christine Heller participating. Additional papers on tularemia in Alaska; fibroelastic characteristics of Alaska natives; and rheumatic heart disease among Alaskan natives were presented. At a second session of the Medicine and Public Health Group, papers on the vocational rehabilitation of Alaska mental patients; immunological studies on respiratory viruses; comparative study of the sanitation aid program in Alaska; etiology of hereditary methemoglobinemia; comparative incidence of clinical poliomyelitis in the Alaska native and non-native residents of 1950-54; and incidence of polio-



myelitis virus antibodies among residents of two Bering Sea island communities were presented. In addition under the section of Biology and Medicine, a number of extremely fascinating papers on the metabolism of hibernating Arctic animals and the effect of prolonged cold exposure on these various animals were presented. Many of these papers originated from the Arctic Health Research Center and the Air Force Aero-Medical Laboratory of Ladd Air Force Base in Fairbanks. Dr. Laurence Irving of the Arctic Research Center in Anchorage was the chairman of these latter sessions.

### LOCAL NEWS

**JUNEAU.** Dr. Henry Gibson, former Commissioner of Health, has been officially appointed the Director of Health under the new Commission of Health and Welfare. After spending three weeks in a post-graduate course in respiratory Physiology in Edmonton, Canada, Dr. Henry Widle has resumed his duties as an internist with the Juneau Clinic.

**KETCHIKAN:** After many years of practice in this area, Dr. G. Lee Stagg is returning to Minnesota, and his practice is being taken over by Dr. E. L. Winton of Loma Linda, California.

**CORDOVA:** Dr. Glen Crawford, who until recently was associated with the United States Public Health Service in Anchorage and Bethel, will do a 'locum tenens' for Dr. Joseph A. Tedesco. After October 1st, Dr. Crawford will be associated with Dr. Charles St. John in general practice in Anchorage.

**FAIRBANKS:** A new clinic has been formed by Drs. James A. Lundquist and Lawrence I. Dunlap, formerly of the Doctors' Medical and Surgical Clinic, which will be known as the Tanana Valley Medical and Surgical Group. Dr. William Dunbar has joined Dr. Henry Storrs in the general practice of medicine. Dr. Kenneth Kaisch left the Fairbanks Clinic and Alaska to become a Major in the regular Army Medical Corp July 1st. Dr. George Cloutier started a residency in Psychiatry in Boston, and Dr. Elliot L. Coles returned to Milwaukee to practice Orthopedics. Two new physicians have joined Dr. Weston's group at the Doctors' Medical and Surgical Clinic. Dr. Samuel McCarran, formerly of Reno, Nevada, has specialty training in both Surgery and Anesthesiology. Dr. Carl Boswell, formerly of New York City, joined the group as an Internist.

**FORT YUKON:** As this community is without a physician since the departure of Dr. W. Burns Jones, several Anchorage physicians have volunteered their services for one to two week periods. During July, Dr. Fred Hillman, a surgeon with the United States Public Health Service Indian Hospital in Anchorage, and his wife, Dr. Louise Ormond, an internist, spent one week as volunteer physicians in the community.

**BETHEL:** Dr. Harriet Jackson, formerly Medical Officer in Charge at the United States Public Health Service Hospital and most recently associated with the Children's Bureau ENT Survey out of the McGrath area, opened her office July 1st as the first private physician in Bethel. She is equipped to do deliveries and minor surgery such as T & A's, in her office, as she will have no private hospital facilities closer than Anchorage or Fairbanks. To date she has been frequently called upon to make house calls with the help of various bush pilots to villages 50 to 100 miles away.

**KODIAK:** Drs. Robert Johnson and Bruce Keers and their wives have taken up the art of skin diving, complete with frogman outfits.

**PALMER:** Chugiak, located halfway between Palmer and Anchorage, now has the services of Dr. Marshall Simpson three days a week. He will maintain his office in Palmer the days he is not at Chugiak.

**ANCHORAGE:** Post-graduate courses were attended by Dr. Milo Fritz in rhinoplasty in New York City and by Dr. John Tower, who attended the International Congress of Pediatrics in Montreal during July. Dr. Tower recently received his private pilot's rating and has joined the rapidly increasing group of Anchorage flying physicians. The Drs. Chao recently had their third child, a girl, and Dr. Chao has returned to her duties as anesthesiologist at Providence Hospital after a month's leave of absence. Since Dr. Joseph Gallagher's transfer to Washington, D. C., Dr. Stewart Rabeau has been Acting Area Medical Director of the United States Public Health Service. Dr. Harvey Zartman, a 1953 graduate of the University of Chicago, who recently completed his Pediatric residency at Bob Roberts Hospital, a branch of the University of Chicago, joined Drs. John Tower and Helen Whaley in pediatric practice August 1st. He was formerly stationed at Ladd Air Force Base. ●

# *Letters to the Editors . . .*

## **"A QUESTION OF FREEDOM"**

On March 9, 1959, the American Cancer Society released to all its members in Alaska and presumably to the rest of the United States, a bulletin called "A Background Paper on Krebiozen," completely negating the clinical findings and the research evidence published by the Krebiozen Foundation and casting suspicion on even the existence of the drug. Insinuations were made as to the integrity of the clinical investigators working with the Krebiozen Research Foundation.

Krebiozen was brought to the United States by Dr. Steven Durovic in 1950 and presented for evaluation of its efficacy in cancer treatment to Andrew C. Ivy, M.D., then vice-president of the University of Illinois, in charge of research. Dr. Ivy was presented with this substance primarily because of his reputation and integrity in the fields of scientific research. Former executive director of the National Advisory Cancer Council and former director of the American Cancer Society, Dr. Ivy is an outstanding scientist, world-famous as a physiologist and a major contributor to our present knowledge of gastro-intestinal physiology. He represented World Medicine as an expert witness at the Nuremberg trials on the subject of ethics and clinical investigation. Before he became vice-president of the University of Illinois he was professor of physiology at the University of Northwestern School of Medicine.

Following his initial publication of the favorable results of clinical investigation of Krebiozen based on the files of 140 patients treated, a controversy was started which is still continuing eight years later. During this interim period the Krebiozen Research Foundation has continued its investigation and clinical trial of Krebiozen.

With the suspicion that where there is this much smoke there must be a little fire I have undertaken to summarize Dr. Ivy's reply to the American Cancer Society's "Background Paper on Krebiozen," as set forth in the U. S. Congressional Record, May 20th, 1959, pages 7740-7747. This seems indicated since, to my knowledge, Dr. Ivy and the Krebiozen Research Foundation have not been allowed to publish such a report on Krebiozen in any publication controlled by

the American Medical Association. One of the cardinal points made in Dr. Ivy's reply centers around the first AMA investigation of Krebiozen, the results of which were published in its Status Report on Krebiozen in 1951. This 1951 critical study, Dr. Ivy claims, was in part forged and falsified in that 24 out of their 100 cases were fabricated by Dr. Henry Szudjewski, a member of the AMA's investigating committee. To support this charge Dr. Ivy states that ten of those patients declared dead or dying by the AMA in 1951 appeared before the commission of the Illinois General Assembly in 1953 and protested under oath that they were indeed alive and in good health. Dr. Szudjewski also admitted under oath before this same commission that he had never treated any patients with Krebiozen. Dr. Ivy states that of the remaining 76 cases included in the AMA "Status Report" 40 were so close to death that they received only 2 ampules of Krebiozen 72 hours apart and of the remaining 36 cases 33 were so close to death that they received only 4 ampules of Krebiozen.

If this be true, organized medicine has been guilty of presenting one of the most fraudulent and fictitious reports on the evaluation of a drug in its history.

The American Cancer Society in its background paper asks, "Has Krebiozen been tested?" and, as an answer, cites the following:

- 1) The above AMA "Status Report," 1951.
- 2) The report of the committee on cancer diagnosis and therapy of the National Research Council.
- 3) The report of the Cole Committee, a panel of six physicians headed by Dr. Warren Cole.
- 4) The opinion of Dr. Stanley Reiman, former director of the Lankenau Institute.

Dr. Ivy states, regarding the Report of the Committee on Cancer Diagnosis and Therapy of the National Research Council, that Krebiozen was not used by this committee and that they only endorsed the fraudulent "Status Report" of the AMA. This is supported by the testimony in 1954 of Miss Isabela Watson, executive director of the committee.

The published negative conclusions of the



Cole Committee, Dr. Ivy states, are not supported by its findings which were subpoenaed by the Illinois Legislative Commission investigating the controversy. The investigation by this commission revealed that the Cole Committee concurred in the histologic diagnosis of malignancy in 8 out of 9 slides presented to them and that they found 5 of the slides from these same patients negative for malignancy following the Krebiozen therapy.

As fourth evidence in answer to the question, "has it been tested?" the American Cancer Society quotes Dr. Stanley P. Reiman, director of the Institute for Cancer Research as saying "we have cured no patient with Krebiozen." This public statement by Dr. Reiman is in direct contradiction to the report Dr. Reiman presented to the Cole Committee. This report was based on the results of 21 months of experimentation in the Lankenau Research Institute where under his supervision 40 patients were treated with Krebiozen. This report of Dr. Reiman to the Cole Committee concludes "the material has definite biologic activity specifically against tumor cells either directly or indirectly of sufficient degree to warrant continued investigation both clinically and from the basic investigation of its mode of action."

Further in the "Reply of the Krebiozen Research Foundation" to the American Cancer Society's paper, in answer to the criticism that the Krebiozen research has been privately printed, the Krebiozen Foundation states "that all publication in the medical literature has been systematically blocked through the exercise of bureaucratic control by the American Cancer Society and the American Medical Association over the scientific community." The Krebiozen Foundation states that in spite of numerous attempts, Dr. Ivy and Dr. Durovic have been unable to have an article on Krebiozen accepted for publication in a medical journal since 1951.

The American Cancer Society's paper goes on to intimate that Krebiozen may be "non-existent" and presents as evidence the 1958 statements of two chemists. Dr. Paul Kirk and Dr. Arthur Furst of the University of California and Stanford. Their testimony that nothing was found in the samples of Krebiozen except heavy mineral oil or Nujol, not only was published in the American Cancer Society's paper but found its way into the news wire service of the country and was broadcast in the regular news broadcast in California.

The Krebiozen Research Institute refutes their testimony by stating 1) that neither Dr. Batchelder, chairman of the American Cancer Society in California, who supplied the ampoules, nor Dr. Kirk, nor Dr. Faust had ever requested Krebiozen and none was ever sent to them by the Krebiozen Research Foundation and 2) that Krebiozen is not put up in Nujol, a heavy mineral oil, but in No. 9 light mineral oil and 3) that for the amount of animal testing, spectroscopic work and chemical analysis, Dr. Furst would have required at least 360 ampoules of Krebiozen (Dr. Furst had testified that he had received 2 ampoules of Krebiozen).

I have attempted to summarize a few points in the long history of the Krebiozen controversy brought out in Senate hearing by Senator Langer, in May of this year. The charges, made by the Krebiozen Research Foundation to the American Medical Association and to the American Cancer Society, of forgery, of the use of influence by important administrators of the AMA and the ACS, and the charges of suppression of publication of clinical material and of reporting of unscientific data for our general consumption in order to gain our negative support, certainly bear further investigation and public hearing. To my knowledge the AMA and the ACS have never given a satisfactory explanation for their failure to publish a reply to these accusations.

We have often been disillusioned by publicized research and the promotion of drugs found in multicolor brochures but the maintenance of freedom within our laboratories and our medical practices is worth the price of this disenchantment. Should we ever acquire the habit of failing to answer when the boy calls "wolf" we may some day pass up a drug, seriously delaying progress in medicine. Anyone who is familiar with the history of aspirin, digitalis, the sulfonamides, asepsis and small pox vaccine, knows this to be true. Certainly our medical organizations, principally the AMA, have a responsibility to help in safeguarding the public from toxic drugs and to investigate false claims of efficacy of drugs, but this responsibility does not and should not underwrite a carte blanche for any medical society to infringe on the right of a physician to use new drugs in his research and to publish the results thereof.

**Merritt P. Starr, M.D., Anchorage**

# Editorial Page . . .

## VALDEZ NEEDS A DOCTOR

Like many small Alaska communities the picturesque Prince William Sound port of Valdez is without the regular services of a doctor. Many have practiced in the town in the past but have left for varying reasons. Now there is no one to use the well-designed and well-equipped twelve-bed hospital built in Valdez in 1955. The few nurses in town are all the unfortunate townsfolk have to turn to in time of illness or injury. The nurses in turn feel harassed, for their services can be on no basis other than voluntary. But, more than this, they feel ill at ease because they must make medical decisions far beyond the scope of their training. The nearest doctor is Dr. James Pinneo at Faith Hospital of the Central Alaska Mission in Glenallen, one hundred twenty miles away over Thompson Pass.

A part of the problem at Valdez is that in the years since its heyday at the turn of the century the town has had a shrinking economy and a population steadily dwindling to its present five-hundred individuals. Mining is dead at Valdez. So is fish canning. Freightage by truck to Fairbanks had flourished in the past, but lower rates by the Alaska Railroad through Seward or Whittier have largely killed this industry. Tourists do visit Valdez in the summer to fish or to see nearby Columbia Glacier, and this trade represents an important source of income for the town. As one resident expresses it, "we live off tourists in the summer and off each other all winter." With so bleak an economy it is not surprising that this isolated community has had trouble in finding and keeping a physician.

The outlook may now be better, however, for, as we all know, the State Legislature in its first session authorized the purchase and renovation in Valdez of a largely unused sprawling

motel-like apartment for use as a hospital for custodial psychiatric patients, many of whom are now quartered in Oregon. Although the legal ritual attendant upon a land transaction has not yet run its customary tortured course, it is anticipated that at some time in 1960 the Valdez mental hospital will be prepared to accept patients,—if a doctor can be found to care for them.

The hiring of a doctor for this purpose lies largely within the hands of Dr. J. B. K. Smith, Chief of the Section of Mental Health, Division of Health of the Alaska Department of Health and Welfare. A generalist, not a psychiatrist, will be sought to care for the physical needs of the patients, for we have been promised that each patient assigned to Valdez will be carefully screened to be sure that his mental illness is irremediable. A salary of at least \$10,000 will be offered to the doctor by the State, and much to the delight of the people in Valdez, the physician will be encouraged to establish a private practice in the town and (with the approval of the local hospital board) in the lovely little hospital.

Thus, with a substantial guaranteed annual income, procurement of a physician for Valdez may be easier, but a stampede to Dr. Smith's office is hardly expected, for the prospect of caring for upwards of two-hundred-fifty valetudinarians in a small, out-of-the-way town, with no medical colleagues close by for consultation or commiseration will appeal to few, and of the few some may be medical derelicts or physicians seeking to escape from major personal problems in other settings. Valdez could well represent to one of these a haven in the storm of his life. Such a man will not do for our mental patients (no matter how irremediable), and such a man will not do for the people of Valdez.

Neither Dr. Smith nor the Valdez hospital board, of course, intend to hire a derelict, but the



memory of the succession of doctors since World War II may fade too quickly from the minds of the citizenry, who in their desperation may, like a spinster eager for union, jump at the first man who comes along. In our opinion the joint selection of a physician by the State and Valdez should not be hasty. Despite the limitations of the job and the town, excellence should be sought. The positive should be accentuated (to distort a phrase),—the guaranteed salary, the fine hospital, the good hunting and fishing, the famous friendliness of the people in Valdez. All of these, if properly broadcast, might have real appeal to a competent, well-trained, emotionally stable physician somewhere who would be interested in an unusual, rewarding, and intensely independent medical experience away from Suburbia,—perhaps a hungry doctor just out of internship or general practice residency training; perhaps an older physician legitimately exhausted by busy practice rather than enervated by personal troubles. And no delusions should be nurtured about attracting anyone, especially a younger man, to stay for more than a few years, for a succession of good men would serve the State and the community almost as well as a permanent man.

Finally, how will Dr. Smith's office or the town of Valdez know whether or not an applicant for the job is competent? They won't,—at least not from the application form and letters he submits. Almost everyone has been graduated from a "Grade A" medical school and has had

an internship in an "acceptable" hospital, and letters of reference are among the easiest of all things to obtain. Few doctors are so awful or so friendless that they cannot find someone to write a nice letter about them. Sad to say, a man may be utterly lacking in medical judgment and impossibly boorish personally and still have muddled through medical school and an internship so as to "look good on paper." What is needed to avoid an unfortunate choice are truly candid opinions about a candidate. These must be sought from both the professors and from the contemporaries of the physician. Of the two the opinion of the contemporary may be less balanced but is often more revealing. Fellow interns and residents usually know the pretenders in their midst. Complete information as possible about any applicant must be obtained, and in this regard all of us practicing in Alaska might be of help in securing a physician for Valdez, for our medical backgrounds are sufficiently varied that we should be able to get direct information about any man seriously being considered for the position in Valdez.

Although the opinion of the Alaska State Medical Association was not sought concerning the advisability of placing a mental hospital in Valdez, we trust that the State, as well as the Valdez hospital board, will feel free to ask the Alaska State Medical Association to help them find a doctor for Valdez.

**Rodman Wilson, M.D., Assistant Editor**



## *President's Page*



"We hold these truths to be self-evident" was a phrase used by Thomas Jefferson many years ago in the founding papers of our nation. Several things which seem obviously self-evident to me are repeatedly not labeled as such by some members of the Congress of our United States.

Doctors have repeatedly opposed any move toward socialized medicine and with the support of the general public have defeated many direct attempts to promote it. However, few of us realize that we can be socialized by the increase of our taxes to the point where we would be working for the government most of the time. This is what I call the back door to socialized medicine.

It seems quite self-evident to me that the government cannot increase their services without a corresponding increase in taxes sooner or later. This seems to escape the attention of many of our legislators in their efforts to obtain progressively more appropriations for their own constituents. A constantly increasing national deficit of close to three hundred billion dollars and a deficit in the fiscal year just passed of twelve and

one-half billion dollars would seem to indicate that government services should be decreased in order to help balance the budget, instead of increased.

One easily identified government service which could be eliminated at great saving, would be the Veterans Administration care of non-service connected disabilities. According to our American system these men should be cared for by their local medical profession.

It is also self-evident that the Forand Bill, providing for government subsidized medical care for all over sixty-five, would not only put another 10% of our total population directly under socialized medicine, but would socialize us further by adding several billion dollars to annual federal expenditures thus increasing taxes and inflation and contributing very little but confusion to the medical care picture. This bill is being considered in Congress at present and in my opinion we all should make our thoughts known to our senators and representatives.

***GEORGE E. HALE, M.D., President***  
*Alaska State Medical Association, 1959-1960*



# *U. S. Public Health Service News*

## **DIVISION OF INDIAN HEALTH ALASKA NATIVE HEALTH SERVICE**

### **GENERAL**

Dr. Joseph A. Gallagher, Medical Officer in Charge of the Alaska Native Health Service, left Anchorage July 17 to become Assistant to the Chief for Hospitals in the Division of Indian Health with the U. S. Public Health Service. He will be stationed in Washington, D. C.

Dr. Edwin E. Rabeau was appointed Acting Medical Officer in Charge of the Alaska Native Health Service, stationed at the Alaska Native Hospital, Anchorage.

The following new assignments to the Alaska Native hospitals have been made:

### **ANCHORAGE—Medical Officers**

Dr. James W. Justice, a graduate of Bucknell University and the School of Medicine of the State University of New York, who recently completed his internship at the San Francisco, California, General Hospital.

Dr. James K. Van Kirk, who interned at Western Pennsylvania Hospital in Pittsburgh in 1957 following his graduation from the University of Pittsburgh, joined the Public Health Service in 1958 and was formerly assigned to the PHS Outpatient Clinics at Los Angeles and San Pedro, California.

Dr. Marc D. Rosenberg, who graduated from Cornell University and School of Medicine of the State University of New York, has been resident in anesthesiology and staff physician at the Bronx Municipal Hospital Center, New York, since 1957.

Dr. Carl E. Sandberg transfers to Anchorage from the PHS hospital at Seattle where he interned following graduation from the University of Minnesota.

Dr. J. Guarino graduated from Louisiana State University School of Medicine in 1957, and has just completed a year as general practice resident at the Charity Hospital of Louisiana, New Orleans.

### **Dental Officer**

Dr. Alfred Hamel joined the PHS in 1956, following his graduation from the Baltimore, Maryland, College of Dental Surgery. Prior to his transfer to Anchorage, he served as Dental Officer at the U. S. Coast Guard Receiving Center, Cape May, New Jersey.

### **Pharmacists**

Mr. Edward E. Madden, Jr., graduated from the Massachusetts College of Pharmacy at Boston in 1957, and has been on the staff of the PHS hospital in San Francisco for the past two years.

Mr. Duane A. Tye is a graduate of Washington State College.

### **KANAKANAK**

Dr. J. Kenneth Fleshman, who interned at Los Angeles County, California, Hospital after graduation from the University of Southern California School of Medicine, has been named medical officer in charge.

### **BARROW—Medical Officer**

Dr. George S. Walter, medical officer in charge of the Barrow hospital, is a graduate of the University of Colorado Medical School. He interned at the Denver General Hospital, Colorado.

## **Dental Officer**

Dr. Robert C. Birch was graduated in June from the University of Minnesota Dental School.

## **TANANA**

Dr. Stanley Hadley, Jr., assigned as medical officer in charge, completed his internship at the Allegheny General Hospital in Pittsburgh, Pa., in June, 1958, after graduation from the Hahnemann Medical College at Philadelphia.

Dr. John E. Hepler, who will assist the staffs at both Barrow and Tanana hospitals, is a graduate of the Hahnemann Medical College, Philadelphia, and interned at the Allegheny General Hospital in Pittsburgh.

## **KOTZEBUE**

Dr. Robert I. Fraser, who has just completed a year in residence at Pennsylvania Hospital in Philadelphia; and Dr. Charles H. Neilson, a graduate of the University of Cincinnati College of Medicine, Ohio. Dr. Fraser was stationed at Kotzebue in 1957-58 and is returning as medical officer in charge.

## **PRIBILOFS**

Dr. William H. James, a recent graduate of

Ohio State University, who interned at Denver General Hospital, Colorado, will be medical officer in charge at St. George Island.

Dr. Earl S. Young, who interned at Central Maine General Hospital, Lewiston, after graduation from Tufts University School of Medicine, Boston, has been assigned as medical officer in charge at St. Paul Island.

## **BETHEL**

The new medical officer in charge is Dr. George N. Wagnon who has been in charge of the Kanakanak hospital since 1955. Dr. Wagnon is a graduate of Emory University Medical School in Georgia and was resident in surgery at Georgia Baptist Hospital in Atlanta. Also named to the staff were Dr. Roland G. Beckering, a graduate of Northwestern University Medical School, Chicago, who recently finished internship at St. Luke's Hospital in Duluth, Minnesota; and Dr. Clayton H. McCracken, Jr., a graduate of Duke University School of Medicine, Durham, N. C., who interned at Louisville, Kentucky, General Hospital.

## **KETCHIKAN**

Dr. Aubrey N. Stevens, who graduated this spring from the University of Minnesota Dental School, has been named Dental Officer in charge.







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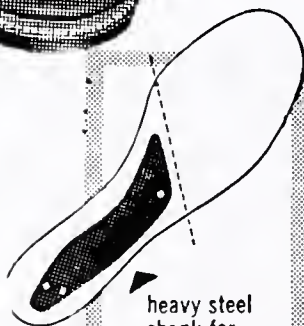
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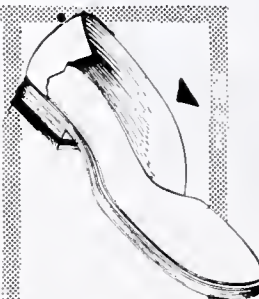
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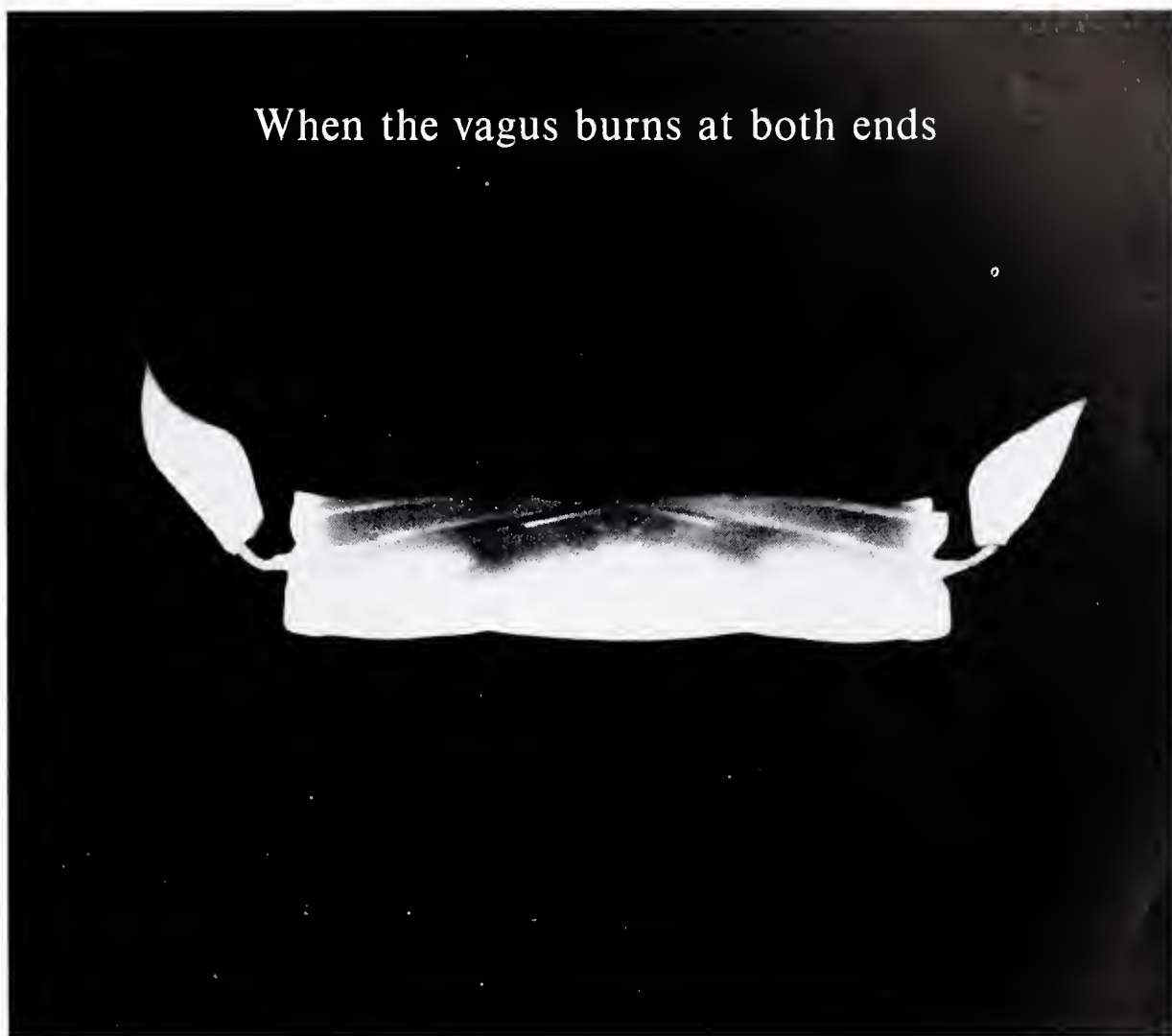
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### COVER PHOTO:

#### PORTAGE GLACIER,

near Portage, Alaska

by Electra Joiner, Nurse Anesthetist, Providence Hospital, Anchorage, Alaska

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# RECOGNITION OF THE WOLFF-PARKINSON-WHITE SYNDROME ON ROUTINE ELECTROCARDIOGRAMS

*HENRY WILDE, M.D. and JACK WM. GIBSON, M.D.*

JUNEAU

The routine recording of an electrocardiogram as part of a general health survey in young adults without symptoms suggestive of cardiovascular disease might be considered as a procedure of still debatable merit. It is nevertheless commonly performed; no doubt frequently not as an adjunct but as a poor alternative to an accurate history and examination. The discovery of incidental electrocardiographic abnormalities in such instances is not uncommon<sup>(1)</sup> and their misinterpretation to the patient may result in disabling new symptoms or the aggravation of existing minor variations in heart rhythm and rate. Myofascial chest consciousness frequently develops into chest pain under such circumstances and may lead physician and patient into even deeper conviction that severe heart disease is present. It is well documented that the following are some electrocardiographic abnormalities occasionally found in asymptomatic young subjects without heart disease:

1. ST-segment elevation and depression.<sup>(2,3,4)</sup>
2. T-wave flattening and inversion (the juvenile pattern).<sup>(5)</sup>
3. Partial and complete heart block.<sup>(6)</sup>
4. Partial and complete right bundle branch block.<sup>(7)</sup>
5. Paroxysmal and permanent atrial fibrillation.<sup>(7)</sup>
6. The Pre-excitation or Wolff-Parkinson-White syndrome.

The first three abnormalities may be transient or they may be demonstrable in successive tracings. They are particularly common in association with fear, tension or anxiety states and in psychotic individuals.<sup>(2,8)</sup> They can be frequent-



*Dr. Wilde*

ly abolished by sedation, the use of anticholinergic drugs or exercise.<sup>(1,2)</sup> The patient with so-called neurocirculatory asthenia has a particularly high incidence of these electrocardiographic variants.<sup>(9)</sup> The fact that congenital complete heart block is compatible with no evidence of organic heart disease, a normal life expectancy and indeed a high exercise tolerance has been demonstrated by the discovery of such a complete block in an Olympic Games athlete. Permanent atrial fibrillation without heart disease is rare but likewise well documented.<sup>(7)</sup> Up to 50 per cent of patients with complete right bundle branch block have no symptoms or signs of heart disease and this anomaly by itself does not alter life expectancy.<sup>(7)</sup> Even the occasional rare case of left bundle branch block in a healthy individual has been reported.<sup>(7)</sup>

The Wolff-Parkinson-White syndrome consists of an electrocardiographic anomaly that fulfills the following criteria:

1. A short P-R interval (0.10 seconds or less).
2. Widened and slurred QRS complexes (0.11 to 0.14 seconds).

3. Slurring at the onset of the upstroke of R (the delta wave).

The shortened P-R interval is exactly compensated by the widened QRS complex which may have a left or rarely right bundle branch block configuration. A wide spectrum of associated ST and T wave abnormalities are possible.<sup>(10)</sup> The syndrome may be constantly present, it may disappear spontaneously or following digitalis and quinidine administration. Anticholinergic drugs and exercise may both abolish and initiate the Wolff-Parkinson-White syndrome. A particular pre-disposition to attacks of paroxysmal supraventricular tachycardia, paroxysmal atrial flutter and rarely atrial fibrillation and ventricular tachycardia marks the patient with this anomaly.<sup>(11)</sup> It has been reported in children as well as in adults of all age groups and it is thought likely that this is a congenital variant of the conduction pathway between atria and ventricles.<sup>(11,12,13,14)</sup> The view that the abnormality is due to an accessory conduction pathway between atrium and ventricle which "shortcircuits" the AV-node is founded on sound evidence and has been generally accepted.<sup>(13)</sup> The shortened P-R interval may be intermittent or constant. QRS abnormalities may be constantly present or intermittently associated with a constantly present shortened P-R interval. If QRS abnormalities are intermittent they usually have a bundle branch block configuration. A short P-R interval without associated QRS deformity is thought to constitute an atypical or partial form of the Wolff-Parkinson-White syndrome.<sup>(11)</sup> It is likewise associated with a high incidence (11 per cent in one series) of attacks of paroxysmal tachycardia.<sup>(15)</sup>

The Wolff-Parkinson-White or Pre-Excitation syndrome is then a purely electrocardiographic diagnosis of no serious prognostic importance other than leading the physician to expect a higher incidence of paroxysmal tachycardia. Treatment consists of reassurance and management of any paroxysmal arrhythmia as in other patients without pre-excitation. It is possible that digitalization or quinidine in the usual dose may prevent attacks of tachycardia in some individuals with this anomaly. The still frequent lack of understanding of this electrocardiographic variant and the rather unfortunate frequency with which a diagnosis of coronary artery disease is made in patients with the Wolff-Parkinson-White

syndrome was again emphasized by Dr. Wolff in a recent review.<sup>(17)</sup>

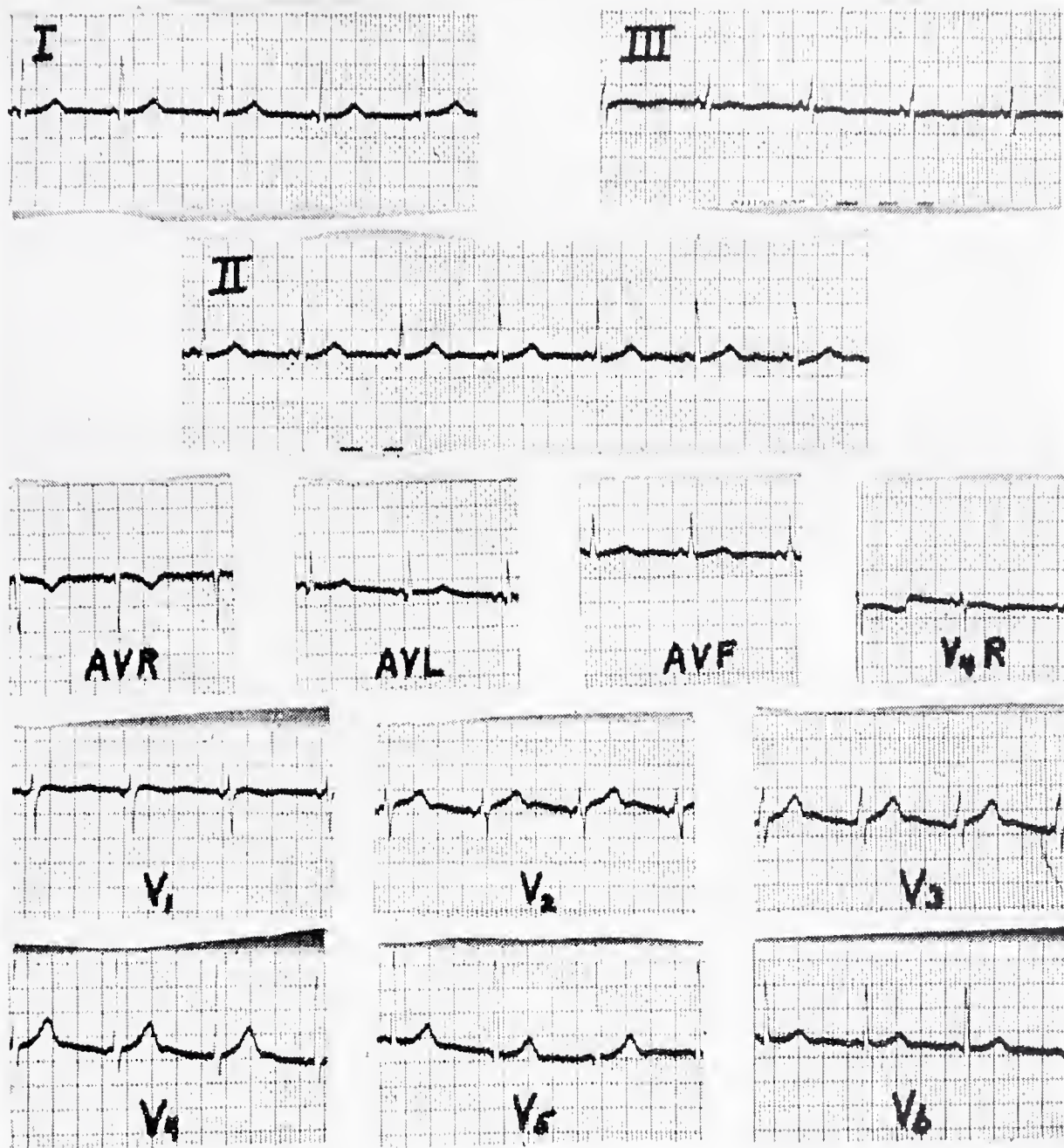
Three recent cases of pre-excitation encountered at the Juneau Clinic illustrate some of the problems in diagnosis and management.

**CASE I (O.S.,JC370)** This 46-year-old woman has a long history of psychosomatic gastrointestinal complaints and mild rheumatoid arthritis. During the past 10 years she noted occasional attacks of paroxysmal tachycardia which always subside within 10-30 minutes. There were no other symptoms or signs of cardiovascular disease. A thorough medical evaluation revealed no evidence of heart disease other than an electrocardiogram with an abnormally shortened P-R interval (0.08 seconds) without QRS abnormalities (Figure). A diagnosis of a typical Wolff-Parkinson-White syndrome was made, the patient was mildly sedated with phenobarbital and was told that she has no heart disease. No further treatment is indicated unless tachycardia becomes more frequent or prolonged.

**CASE II (R.M.,JC 1503).** This 41-year-old army officer enjoyed excellent health until he experienced an airplane accident 3 years ago which resulted in several rib fractures. He was hospitalized for observation and the only remarkable notation on his hospital chart was a persistent tachycardia of up to 150 beats per minute. This lasted 24 hours and recovery was otherwise uneventful and complete. A recent examination was carried out at the request of the Army and included an electrocardiogram. This revealed a classical Wolff-Parkinson-White syndrome (Fig. II). The officer was told about the conduction anomaly, was reassured that it is harmless and his re-enlistment has since been approved.

**CASE III (J.M.,JC1366).** This 40-year-old female schoolteacher's past history is unremarkable with the exception of glomerulonephritis at 15, a normal pregnancy at 25 and a miscarriage at 37 years of age. During a recent visit to Seattle she requested a "check up" because of a persistent post-nasal discharge. Physical examination at that time apparently revealed no significant abnormalities other than myopia, tonsillar tags and a minimal endocervicitis. An extensive "battery" of laboratory examinations included normal hemograms, a chest film which revealed





*Electrocardiogram, Case 1.*

bilateral cervical ribs, a normal serum cholesterol, a normal radioactive iodine uptake and an electrocardiogram which was interpreted as showing left bundle branch block. In spite of the absence of any symptoms or physical findings suggestive of heart disease at that time, a diagnosis of coronary artery disease was made and the patient was told to resign her position and avoid stress and exertion. She was, however, not willing to accept this diagnosis and consulted one of us somewhat later. She now gave a history of anterior chest wall tenderness unrelated to exertion as well as of frequent attacks of rapid heart action. Both symptoms were stated to have been present for years but had become much more

pronounced since the patient had been told that she had coronary artery disease. A physical examination was unremarkable. Cardiac films revealed a normal heart. A resting electrocardiogram demonstrated a short P-R interval with an intermittent QRS deformity showing a left bundle branch block configuration (Fig. III). A diagnosis of Wolff-Parkinson-White syndrome with intermittent QRS deformity was made and the patient was reassured that this is a rare conduction anomaly which is not indicative of coronary artery disease. She was told to resume her occupation and all other activities which she has since done. Digitalization completely abolished the attacks of paroxysmal tachycardia which,

mainly due to "heart consciousness," had become somewhat of a problem. Physiotherapy and occasional mild sedation with phenobarbital notably improved the myofascial chest wall pain.

The bizarre electrocardiographic patterns of the Wolff-Parkinson-White syndrome must appear very ominous to a physician who is not familiar with the less common "functional" electrocardiographic abnormalities. It is therefore in order to caution once again against premature electrocardiographic diagnoses of organic heart disease. It is perhaps also worth while to remember that a normal cardiogram, in the other extreme, does not necessarily exclude the presence of such severe forms of organic heart disease as myocardial infarction (the "silent infarct" has been well documented<sup>(7)</sup>), ventricular hypertrophy<sup>(16)</sup>, as well as various forms of rheumatic (notably mitral stenosis) and congenital heart lesions. A carefully taken history and physical examination must augment the electrocardiogram which only in conjunction with the total clinical picture becomes a useful tool.

### SUMMARY

Not all electrocardiographic abnormalities are indicative of heart disease. A wide variety of changes in the P-R, S-T, T and even QRS complexes are occasionally encountered with alterations in the autonomic nervous system or as minor congenital abnormalities of cardiac electrophysiology. The Wolff-Parkinson-White syndrome consists of abnormally rapid conduction of the atrial impulse to the ventricular myocardium with frequent secondary deformity of the QRS complex. It predisposes the subject to paroxysmal arrhythmias but does not significantly alter life expectancy. The proper recognition of this and other "functional" electrocardiographic anomalies may prevent anxiety, economic loss and "heart disease of electrocardiographic origin."

We are indebted to the Division of Health, State of Alaska, for preparing the reproductions of our electrocardiographic tracings.

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# MALIGNANT ECHINOCOCCUS DISEASE OF THE LIVER

J. T. WEST, M.D.

USPHS ALASKA NATIVE HOSPITAL  
ANCHORAGE

Although there are still wide gaps in our knowledge of echinococcosis, a considerable body of information has been accumulated on the two forms of hydatid disease occurring in man in Alaska. Most of this has come from the studies of Rausch and co-workers at the Arctic Health Research Center in Anchorage. It is the purpose of this communication to review the more recent work which demonstrates that the alveolar form of the disease is caused by a distinct species of *Echinococcus*, and to report our experience with three cases having fatal termination.

*Echinococcus granulosus* (Batsch, 1786) is the best known species of *Echinococcus* and was long considered the only one found in man. The definitive host of this tapeworm is usually the dog or wolf, in which the adult worms occur in the intestine. The intermediate host, harboring the larval stage, is a grazing animal such as various species of deer, cattle and sheep; such animals become infected by eating tapeworm eggs discharged in the feces of canine animals. The definitive host becomes infected by eating the involved viscera of the intermediate host.

*Echinococcus multilocularis* (Leuckart, 1863) has a similar life cycle. A canine animal, usually a dog or fox, serves as the definitive host. However, rodents are the natural intermediate host. This species of tapeworm has been referred to in the literature under the specific names *E. alveolaris* (Klemm, 1883) and *E. sibiricensis* (Rausch and Schiller, 1954).

Man may be the intermediate host for either *E. granulosus* or *E. multilocularis*. At the Alaska Native Health Service Hospital in Anchorage, those patients in whom we were able to make a positive diagnosis surgically of infection by *E. granulosus* all harbored the parasite in the lung, the larval cestode occurring there as a unilocular



cyst (Fig. 1). On the other hand, the patients having proven alveolar hydatid disease all had the primary involvement in the liver. The latter group represents *E. multilocularis* infections (Fig. 2).

Conversations with a number of medical colleagues outside Alaska, and references to medical colleagues outside Alaska, and references to medical texts and text books on human parasitology indicate that in the United States, at least, the fact that alveolar hydatid disease is produced by a parasite distinct from *E. granulosus* is not generally known nor readily accepted. It has been stated by those who dissent with the thesis being presented here, that the alveolar form of the disease, seen most typically in the liver, is produced by *E. granulosus*, and that the unusual form of the parasite seen in some cases is due to a differ-

ent host response. That this is not true, and that there is actually a separate disease produced by a species of *Echinococcus* has been substantiated by both morphological and epidemiological evidence. The 1957 edition of **Craig and Faust's Clinical Parasitology** indicates that multilocular hydatid disease is a clinical entity caused by a distinct species of cestode, *E. multilocularis*<sup>(2)</sup>.

Rausch (1956)<sup>3</sup> and Vogel (1957)<sup>4</sup> have demonstrated morphological differences between the adults of the two species of cestodes, and these are sufficient in degree to separate the two species. Differences in the larval stages as regards morphology, manner of development, and host specificity are likewise sufficient to distinguish the two species. Rausch and Jentoft (1957)<sup>5</sup> were successful in culturing the larval form of *E. multilocularis* *in vitro*, demonstrating its characteristic exogenous budding. *E. granulosus*, on the contrary, does not bud exogenously, but contains all larval elements within a single cyst which typically is surrounded by a dense layer of connective tissue of host origin. Such a cyst enlarges by an expansive type of growth.

The exogenous budding of the larval *E. multilocularis*, seen in both its natural and human intermediate hosts, imparts to this parasite its malignant potential, since the budding cysts actually progressively invade the surrounding tissues of the host. Moreover, as will be seen in our case presentations, it is likely that hematogenous occur as the result of invasion of blood vessels. The parasitic tissue remains viable at the interface between parasite and host, but in man necrosis usually occurs centrally.

If liquification develops in the necrotic portion of the larval mass the lesion may superficially resemble a unilocular cyst, but the exogenously budding, invasive nature of the parasitic tissue at the periphery, and the granulomatous host response, distinguish the lesion from the unilocular cyst of *E. granulosus*.

Only by rupture of the containing pericyst could the latter spread into neighboring host tissues.

As regards host specificity, Rausch and others have been almost routinely successful in infecting microtine rodents with the larvae of *E. multilocularis*, but it has not been possible to infect these same species of rodents with the larvae of *E. granulosus*<sup>5</sup>. This provides additional

clear-cut evidence for the existence of two species of *Echinococcus* infecting man.

From an epidemiological standpoint, it is noteworthy that alveolar hydatid disease of the liver is known only from certain regions of the world (e.g., Siberia, southern Germany and the tundra zone of Alaska), and it has not been reported from many areas where the unilocular infections of *E. granulosus* are commonly seen (e.g., Greece, Australia, Canada and various regions of South America). Unilocular *E. granulosus* infections of the lungs have been seen by us in natives from virtually all parts of Alaska, including both the tundra country and the forested interior. On the other hand, we have seen alveolar hydatid disease of the liver only in natives from such areas as St. Lawrence Island and the northwest tundra country about Kotzebue and Point Hope. We have never observed alveolar hydatid disease in the people from the forested interior nor from the arctic mountains. It is difficult to account for the restricted distribution of *E. multilocularis* in Alaska. It is known, however, that the various species of microtine rodents (such as the red-backed vole and the tundra vole) which serve as its intermediate host are found most abundantly in the tundra zone, and other factors, not yet defined, may be involved.

Following are reports of three cases of multilocular hydatid disease of the liver treated by us at the Public Health Service, Alaska Native Hospital, Anchorage.

#### CASE No. 1

R. T. was a 53-year-old Eskimo man from Point Hope, a village on the far northwest coastal tundra of Alaska, who was admitted to the Native Hospital in Anchorage 7-24-57 with a chief complaint of pain in the right upper abdomen continuously for four months, and intermittently for several years. He denied anorexia, weight loss or any history of jaundice. He had had an upper abdominal operation five years earlier, the exact nature of which was not known.

Physical examination revealed a well-developed Eskimo man of 146 pounds. No icterus was noted. Fine rales were heard in both lung fields and breath sounds were decreased at the right base. The liver was palpable five finger breadths below the right costal margin and three finger-breadths below the left costal margin. Different



observers were not in agreement as to whether the liver was nodular or smooth, but it was non-tender. One observer thought the spleen was slightly enlarged.

Laboratory examination: WBC 11,750. Differential white blood count: neutrophils 63% (8 stabs); lymphocytes 31%; Eosinophils 6%. Hemoglobin 11.6 Gm %. Routine urinalysis normal. Stools for occult blood varied from slight trace to 3+ guaiac. Serum bilirubin 5 mgm % on 8-19-57 and 1 mgm % on 8-26-57. Alkaline phosphatase 11.3 Bodansky units. BSP retention 6% in 45 minutes. Prothrombin time 14 and 17 seconds, control 12 seconds. Total serum protein 11.6 Gm % and A/G ratio 4.4/7.2. Urine negative for Bence-Jones protein. Sedimentation rate 44mm/hour Wintrobe. PPD No. 1 negative. PPD intermediate positive. Sputum collected 9-17-57 was reported to show positive culture for *Mycobacterium tuberculosis* 10-25-57. Chest x-ray showed linear scarring of both apices but was not suggestive of active disease. Plain x-ray of the abdomen, IVP, upper G.I. series and a barium enema were all reported normal except that they suggested the presence of a large mass in the upper right abdomen, extrinsic to the colon.

Needle biopsy of the liver 8-8-57 was reported as normal liver. Laparotomy 9-5-57 revealed a large smooth left lobe of the liver, and most of the right lobe was replaced by a large, yellowish tumor presenting at the serosal surface on the right margin. Apparently compressed liver overlaid the tumor elsewhere. A biopsy was taken at the junction of the tumor with relatively normal liver. At the conclusion of this operation it was believed that the lesion was a neoplasm of the liver, type undetermined. Microscopic studies of this tissue were done both by our consultant pathologist in Anchorage and in the pathology department of the United States Public Health Service Hospital in Seattle. Both reported a granulomatous process with areas of necrosis. The initial impression of one was that the lesion was tuberculosis. The other favored an animal parasite as the etiologic agent, based on the observation of bits of material in the sections which were consistent with portions of a parasite. The report of acid-fast bacilli in a sputum culture was obtained in October. In November a supplemental report from the pathologist who had earlier favored an animal parasite as the responsible agent stated that since further study of the sections had

failed to clearly demonstrate an animal parasite, and since Langhan's type giant cells were seen in the granulomatous lesion, the diagnosis was most likely tuberculosis of the liver. In the face of all this evidence it was agreed by all that the lesion in the liver was probably a tuberculoma. Late in the fall of 1957 the patient was transferred to the PHS, Alaska Native Hospital at Mt. Edgecombe, Alaska, for long-term drug therapy for tuberculosis.

While at this institution the patient experienced tonic seizures accompanied by a post-ictal state and for this was referred to the USPHS Hospital, Seattle, for further evaluation. He made a favorable response to treatment with antileptics, but further observation and neurological consultation failed to result in a definitive diagnosis of the central nervous system lesion during his life-time. By the spring of 1958 further review of the biopsy material from the liver, including comparison with material which by this time had been obtained from case No. 2, finally resulted in a correct diagnosis of the hepatic lesion. This was supported by a very high titer on a hemagglutination test for echinococcosis. Therefore, in the spring and summer of 1958 a staged marsupialization of the lesion in the liver was done. By August, 1958, the fistula from the liver seemed to be slowly healing when the patient had a series of grand mal seizures not controllable by drugs, and he finally lapsed into coma from which he did not recover.

Autopsy revealed multilocular hydatid disease of the liver and marked hepatomegaly, the liver weighing 4,000 grams. There was a cavity in the right lobe of the liver described as "grapefruit-sized." The right lobe of the liver extended down to the right kidney and was densely adherent thereto. In addition to the above there was found in the vermis cerebellum a gray, fibrous, 4 cm echinococcus lesion and associated internal hydrocephalus. The lesion of the cerebellum was considered to be the cause of death.

#### CASE No. 2

T. S. was a 62-year-old Eskimo woman from Kotzebue, located on the coast north of the Seward peninsula. In the autumn of 1957 she had noted anorexia, weight-loss and easy fatigability for which she was seen at the PHS, Alaska Native Hospital, Kotzebue, in October, 1957. She was noted at that time to have marked hepatomegaly.

She had had an upper abdominal operation in Kotzebue in 1947.

Complete records of her previous hospitalization were not available to us, but from the information available it was believed that she had been found to have a "scirrhous carcinoma of the duodenum." It was therefore believed, at the time of her present admission, that she suffered from metastases to the liver from a malignancy primary in the duodenum.

At the time of her admission she complained only of poor appetite and occasional nausea and vomiting. She denied pain and intolerance of specific foods. She had noted her stools to be yellow and her urine dark.

Physical examination revealed a thin, chronically ill Eskimo woman of 123 pounds. Her sclerae were icteric. Moist rales were heard at the right base and the percussion note was decreased over the lower right lung field. The abdomen was distended and there were dilated periumbilical veins. The liver was markedly enlarged, extending almost to the right iliac crest. One observer described it as nodular. Healed surgical scars were noted in the epigastrium and in the suprapubic area.

Laboratory examination: WBC 7,300 on admission, and 11,650 on 3-21-58. Differential white count was: neutrophils 79%; lymphocytes 19 %; monocytes 1%; and eosinophils 1%. Hemoglobin 14 Gm %. Urine was strongly positive for bile but was otherwise normal. Serum bilirubin 14 mgm % (8 direct, 6 indirect). Alkaline phosphatase 13.8 Bodansky units. Prothrombin time 18 seconds, control 14 seconds. Cephalin flocculation 3+ in 48 hours. Total serum protein 7.4 Gm % and A/G ratio 3.2/4.2. Hemagglutination for echinococcosis drawn 3-12-58 was reported positive in a dilution of 1/64,000, but this result was not available to us until about the 1st of April, 1958. Chest x-ray showed elevation of the diaphragms, but no evidence of metastases or active pulmonary disease.

Laparotomy done 3-3-58 revealed tremendous enlargement of the right lobe of the liver. The left lobe was gray, hard, nodular and slightly enlarged. The stomach, duodenum, pancreas and colon showed no evidence of tumor or prior surgery. The appendix was absent. It was the impression of the operator that the gall bladder was absent and that the gall bladder fossa had been

peritonealized at the time of previous surgery. Both lobes of the liver were biopsied. Microscopic studies of this material revealed non-specific periportal inflammation and bile stasis in the right lobe. In the left lobe was seen necrosis and inflammatory infiltrate including lymphocytes, plasma cells and a few eosinophils and neutrophils. Following this pathology report it was considered that her disease was possibly due to **Echinococcus multilocularis**, but since the pathological findings had not been unequivocally reported as such and since we had not yet received the positive hemagglutination report, the diagnosis was still in doubt. She was reexplored on 3-21-58. The gall bladder was identified and found to contain stones. The common bile duct was explored and found to be normal. A prominent periductal lymph node was noted, however. The gall bladder was extremely friable and was therefore removed by morcellation. In so doing a large cavity in the liver, contiguous with the gall bladder, was entered. The cavity extended to the left and occupied virtually the entire left lobe of the liver. The cavity contained dark green liquid. A calculus found in the cavity was probably introduced there at the time of this surgery, though at the time its presence in the cavity was construed as evidence that the cavity had resulted as a complication of cholelithiasis. After evacuation of the cavity it was noted that the left lobe of the liver was small and softer than before. The cavity was packed with iodoform gauze and the abdomen was closed, leaving a penrose drain and a T-tube in place. The opening into the liver was on its inferior surface and hence did not lend itself to marsupialization at that time. The gauze packing was gradually removed over a period of several days. Post-operatively she developed pitting edema of the lower extremities while the upper extremities showed decreased tissue turgor. Serum sodium was 140 meq./liter and serum chloride only 88 meq./liter, and the edema of her lower extremities responded poorly to salt restriction and digitalization. These findings were considered suggestive of obstruction of the inferior vena cava. Her serum bilirubin continued to fall after removal of the T-tube three weeks post-operatively, and by 5-12-58 was only 6 mgm %. Recurrent hemorrhage occurred from a dilated vein at the site of her hepatic fistula. By this time further review of the biopsy specimens and the strongly positive hemagglutination test for echinococcosis had established the diagnosis of



hydatid disease of the liver. On 7-17-58 the cavity was widely unroofed and the skin margins sutured to the inner margins of the fistula. At this time large pieces of necrotic, sequestered liver were removed from within the cavity. In the course of the procedure a loop of small bowel was injured, but the defect was easily repaired at the time. However, ten days following surgery she developed an enteric fistula at this site. She failed to make substantial improvement, and since no further surgery seemed feasible in this severely debilitated woman she was returned to the hospital in her native village, Kotzebue. The enteric fistula did not close and she expired 11-13-58. An autopsy was not performed.

### CASE No. 3

M. O. was a 74-year-old Eskimo man from Point Hope. He was admitted to the Alaska Native Hospital, Anchorage, on 5-26-58 because of jaundice. He had also noted diminution in the calibre of stools and had noted excessive eructation. He denied use of alcohol. In the spring of 1958 he had noted exertional dyspnea which had disappeared without therapy.

Physical examination revealed a thin Eskimo man. He was deeply jaundiced but in no distress. The liver was just palpable.

Laboratory examination: WBC 9,300. Differential white blood count: neutrophils 67% (3 stabs); lymphocytes 29%; monocytes 4%. Hemoglobin 14.5 Gm. %. Urine was negative for urobilinogen. One stool was negative for occult blood and one was 4+ guaiac. Total serum bilirubin 22.5 mgm % (10 direct, 12.5 indirect). Alkaline phosphatase 9.6 Bodansky units. Prothrombin time 14 seconds, control 12 seconds. Cephalin flocculation 2+ in 48 hours. Total serum protein 10 gm% and A/G ratio 4.9/5.2. Chest x-ray showed fibrocalcific densities of both apices but no evidence of active disease. Upper G.I. series 5-28-58 was hampered by the patient's inability to cooperate due to language barrier but appeared to be negative. EKG of 5-26-58 was suggestive of septal and high lateral infarct, and a repeat EKG 6-13-58 showed regression of the changes, indicating that this infarct had been of fairly recent origin.

While awaiting completion of evaluation of his cardiovascular system the patient had a severe upper gastro-intestinal hemorrhage 6-14-58 manifested by hematemesis, melena, shock and a fall of his hemoglobin to 5.4 Gm %. At this time hepa-

tomegaly was noted for the first time, the right lobe being palpable about three finger-breadths below the costal margin. He remained critical despite multiple blood transfusions. Exploration of the abdomen was done 6-17-58. At the time this was undertaken it was believed that the patient had a malignancy of the biliary tree, accounting for his jaundice, and that this lesion had ulcerated, thereby accounting for the hemorrhage. A hard lesion was found on the under surface of the right lobe of the liver which was thought to represent carcinoma of the gall bladder. Duodenostomy was done, failing to reveal a lesion of the duodenum or ampulla of Vater to account for his hemorrhage. The stomach felt normal and was not opened. A biopsy was done of the lesion on the under-surface of the right lobe of the liver and green bile flowed freely from this site. A fistula was created between this site and the second portion of the duodenum, using a segment of rubber catheter as a splint for the anastomosis. The patient expired a few hours after surgery from continuing upper G. I. hemorrhage.

At autopsy the liver weighed 1820 grams. The gall bladder was not identifiable. In the region of the gall bladder fossa there was a hard, gray lesion measuring 6.5 x 9 x 9 cm, extending down to and touching the right kidney. The lesion was cavitory and contained black liquid. The wall of this lesion was 5 mm. thick. The stomach contained about 500 cc blood and a deep ulcer measuring 2.2 x 1.7 cm was seen on the lesser curvature. A discrete 3 x 1 x 1.8 cm nodule was found in the lower lobe of the left lung. There appeared to be almost complete obstruction of the anterior descending coronary artery by an atherosclerotic process and the myocardium distal to this was yellow rather than pink.

Microscopic studies revealed "compartmented" echinococcus infestation of the liver, multiple echinococcus lesions of a similar "compartmented" pattern in the lungs, myocardial fibrosis, a benign gastric ulcer, arteriolonephrosclerosis and cholemic nephrosis. The pathologist considered the pulmonary echinococcus lesions to be metastatic.

### DISCUSSION OF THE CASES

These cases have been presented in considerable detail in the hope that the confusion experienced by us in following them may be appreciated and that thereby both we and our readers



might be spared such confusion when confronted by similar complexities in patients with *Echinococcus multilocularis* infections of the liver. The clinical and gross surgical findings in all three were highly suggestive of far-advanced malignant neoplastic disease involving the liver. Microscopically a granulomatous, necrotic process was seen which was suggestive of tuberculosis. The laboratory findings indicated both hepatocellular damage and biliary obstruction. Among

The malignant character of *E. multilocularis* infections of the liver is clearly seen in the cases presented. One of the patients died of hemorrhage from a gastric ulcer. However, because of biliary obstruction caused by the parasitic infection and the pulmonary metastases of the parasites, it is doubtful that his prognosis could have been substantially improved even if the gastric ulcer had been recognized and correctly treated. The necrotizing effect of the parasite on the liver



Figure 1. Unilocular cyst of *E. granulosus*, occurring in lung.



Figure 2. Microscopic section of *E. multilocularis* infection in liver.

parasitic diseases, the elevation of total serum protein due to increased globulin and normal albumin levels is, so far as we are aware, peculiar to the cases described herein. Lack of eosinophilia in two of the three cases is noteworthy. Lack of calcification in the involved portions of the liver is also striking, inasmuch as we and others have at times made tentative diagnosis of visceral hydatid disease on the basis of such calcification seen in roentgenograms. The hemagglutination test for echinococcus disease was diagnostic in the two cases in which it was used. It deserves further study and clinical trial to assess its reliability.

was most clearly seen in case No. 2, who apparently died of liver failure despite having the lesion marsupialized. We have not personally been able to render good surgical therapy for this condition. In the absence of an effective drug to control this disease a proper surgical procedure would be desirable. Marsupialization of the lesion would not seem to be a proper procedure since it only removes the necrotic and non-viable portion of the parasitic nest, doing nothing to abolish or even diminish the exogenous budding of the parasites at their point of contact with host tissues. Therefore, after marsupialization, it would still be possible for invasion of host tissues, or



even hematogenous metastasis to occur. Marsupialization of an alveolar hydatid lesion might be comparable to incision and drainage of a localized bacterial infection. However, it seems to us to have more similarity to marsupialization of a malignant neoplastic process, giving no promise of cure and only limited hope for palliation. A total resection of the diseased area would be more desirable, if feasible.

We do not mean to imply that these multilocular infections of the liver are equally malignant in all persons. We have seen patients in whom hepatic lesions were partially removed or biopsied 10 or 12 years earlier and who showed little or no evidence of progression of the disease when we observed the lesion in the course of some other, unrelated abdominal operation. The fact that there may be a difference in host-susceptibility or parasite-virulence makes difficult the decision for or against such a formidable procedure as a major hepatic resection when alveolar echinococcus infection of the liver is encountered. For purposes of planning therapy one is tempted to draw parallels with management of malignant neoplastic disease. We are not certain that our knowledge of the disease is great enough, or our experience sufficient to justify such conclusions at this time. Therefore we will continue to search for answers to these problems.

In other parts of the world, also, there has been little success in treating alveolar hydatid disease of the liver. Semenov (1954; cited in Rausch, 1959)<sup>4</sup> reviewed 152 cases treated by surgeons in the Soviet Union. Of these, 108 were inoperable, 21 terminated fatally after surgery, and only 12 were considered to have been cured. In an additional 65 cases treated personally by Semenov, only 15 recovered. Dardel (1927)<sup>1</sup>, in Switzerland, reported comparable success for 102 cases considered by him.

### SUMMARY

We have reviewed recent studies on echinococcus parasites, pointing out the features which distinguish *E. multilocularis* from the better known *E. granulosus*. Differences are seen in:

morphology of adults and larvae; manner of larval budding; epidemiology; and host-specificity of the larvae. Three cases of alveolar hydatid infection of the liver are presented, illustrating the clinical features of the disease.

In some ways this disease is very similar to malignant neoplastic disease. *E. Multilocularis* larvae have a capacity for invasion of host tissues and for metastasizing, presumably by the hematogenous route. Speculation is made regarding the therapeutic implications of the biologic characteristics of *E. multilocularis* infections in man. However, our knowledge is still too limited to warrant any firm conclusions as to treatment.

### ACKNOWLEDGEMENTS

We wish to express our appreciation to Drs. B. S. Eggertsen, Clermont Powell and Michael Bierne for pathologic interpretation of surgical and autopsy material, to Dr. J. D. Lane for part of the clinical information on one of the cases, and to Dr. Robert Rausch for his assistance in the preparation of the manuscript.

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# JAUNDICE IN A 10 WEEK OLD CHILD

*GEORGE SPERRY, M. D. and WILLIAM WARD, M.D.*

USPHS ALASKA NATIVE HEALTH SERVICE  
JUNEAU

The following case is presented to emphasize the problem of determining the etiology of jaundice in infancy.

A ten-week-old male Indian from Yakutat was referred to the Alaska Native Health Service in Juneau on October 18, 1959, because of jaundice.

The mother's prenatal course was complicated only by chronic rheumatic heart disease. There was no jaundice or other illness. Her serology in June, 1959, was negative; blood type "O", Rh positive. Delivery was uneventful; birth weight 7 pounds, 10 ounces. The child had no symptoms or illness other than jaundice prior to admission.

Physical examination on admission revealed a well developed and well nourished child with marked icterus. He was afebrile. There was moderate distention of the superficial abdominal veins. The liver edge was felt 4 cm. below the right costal margin. On one occasion the spleen was palpated. There was no remarkable adenopathy or other evidence of infection.

Hgb. 10 gm %; Hct, 28.5%; RBC 3.7 million per cu. mm.; WBC 9,050 per cu. mm.; 20% neutrophils, 1% band, 79% lymphocytes. Urinalysis unremarkable. Stool obtained directly from the rectum contained no bile.

	Oct. 19	Oct. 20	Oct. 21	Oct. 23	Nov. 5
Bilirubin .....	5.8	6.9		5.3	1.7
Direct .....	4.6	4.3		3.9	0.7
Indirect .....	1.2	2.6		1.4	1.0
Icteric Index ....		63.		27.8	13.2
Transaminase (SGOT)		480 units			
Prothrombin Time				30%	

On October 26, using oral alcohol and local infiltration with 0.5% Metycaine, the abdomen was opened through a small incision. A normal



appearing gall bladder and liver were exposed. A wedge biopsy of the liver was obtained. Crying and straining by the child prevented re-exposure of the gall bladder for aspiration of bile or for a cholangiogram.

Microscopic diagnosis of the liver biopsy was: "classic features of giant cell or neonatal hepatitis." Attempts at oral and intravenous cholangiograms were unsuccessful. Post-operatively the child did well. His jaundice regressed gradually.

## DISCUSSION

Jaundice is due to excessive destruction of red cells, damaged liver cells or obstruction of the biliary ducts. This child was beyond the age of "physiological jaundice" of the newborn and maternal blood incompatibility would have manifested itself before this age. Non-hepatic infection can cause jaundice but there was no adenopathy, fever, elevation in white blood cell count or



suggestion of osteomyelitis by X-ray. The mother's serology was negative.

Hepatitis is being recognized with increasing frequency at this age<sup>(1, 2)</sup>.

The most common cause of biliary obstruction in infancy is biliary atresia<sup>(3)</sup>. Biliary obstruction is rarely due to enlarged lymph nodes in the gastro-hepatic ligament, choledochal cyst, annular pancreas or carcinoma of the pancreas<sup>(8)</sup>. Many cases of so-called "inspissated bile" have been proved to be hepatitis<sup>(1)</sup>.

There is no clinical sign or laboratory test which will distinguish hepatitis from biliary atresia. Cephalin flocculation and thymol turbidity, which reflect changes in gamma globulin, are not reliable in infants of this age who normally have a low gamma globulin. Serum glutamic oxaloacetic transaminase is elevated in both hepatitis and biliary atresia, averaging higher in hepatitis<sup>(4,5,6)</sup>. It is not surprising that attempts to opacify the extra-hepatic biliary system with oral or intravenous dye were unsuccessful<sup>(7)</sup>.

It is important to make the diagnosis early. If biliary atresia is present, attempt at surgical repair should be undertaken before irreversible damage occurs. On the other hand, subjecting a child with hepatitis to prolonged anesthesia and to surgical trauma can be lethal<sup>(1)</sup>. A liver biopsy will usually allow the pathologist to make the diagnosis with certainty. Occasionally a percutaneous needle biopsy is adequate<sup>(9)</sup>. A small abdominal incision under local anesthesia allows for a more adequate biopsy. If a gall bladder is found a tube can be inserted for a direct cholangiogram<sup>(10)</sup>. The risk of general anesthesia is to be avoided.

## SUMMARY

A ten week old infant with jaundice is presented. The major causes of jaundice at this age are hepatitis and biliary atresia. The only reliable and safe method of establishing the diagnosis is by liver biopsy under local anesthesia and direct cholangiography.

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# THE SCARRED CORNEAS OF ALASKA

**MILO H. FRITZ, M.D.,**

*Medical Director of the  
Eye Bank of the Eye, Ear, Nose, and Throat Foundation of Alaska, Incorporated.  
ANCHORAGE*

In January, 1940, on a blue cloudless day I arrived in Ketchikan, Alaska, just out of an EENT Residency at Duke University Hospital. My wife and I arrived aboard the S.S. Baranof of the Alaska Steamship Co. with six dollars, a 9-year-old Chevrolet roadster, and the promise of a job as the associate of two stalwart general practitioners, Drs. A. N. Wilson and H. C. Turner.

In those days the Alaska Health Department was a part-time effort more or less carried in the pocket of Dr. W. W. Council, the first Commissioner of Health, who told me when I was taking the Alaska Territorial Medical Examinations that there was something wrong with the natives' eyes—cataracts or the effects of snow blindness. Most of them too, he said, had draining ears, and practically all of them had some form of tuberculosis.

In practice only a few weeks with my two kindly seniors, who were as wise and kind as I was brash and inexperienced, I found that the "cataracts" were corneal scars and that "running ears" represented cases, hundreds of cases, of mastoiditis.

It did not take long to establish that the corneal scars were due to phlyctenular keratoconjunctivitis, an allergic response of the cornea to suppuration elsewhere in the body. The tubercle bacillus was of course suspected in the lungs or the bones and joints. But 10 years later in 1950, working in association with Dr. Phillips Thygeson of the University of California, we found that the latent focus was non-tuberculous, most likely staphylococcic, in cases of suppuration of the middle ear and the annual spring crop of impetigo.

In 1940, after 17 months of private practice, I went on a year of active duty with the U. S. Air Force in Alaska. By virtue of itinerant experi-



ence in EENT enjoyed during my residency in North Carolina and at Craig, Klawock, Metlakatla, Petersburg, Wrangell, Hydaburg and Kake in Alaska, I was soon en route to all the military outposts in Alaska as EENT emissary for my revered commanding officer, Colonel Duther R. Moore.

Though my primary duty lay with the troops, I had the opportunity of examining hundreds of natives who pathetically sought help from any kind of doctor who happened along, mostly for painfully abscessed teeth, far-advanced pulmonary tuberculosis, running ears, poor vision, and orthopedic problems. I was appalled at the number of youngsters deaf from mastoiditis and blind from the corneal scars caused by repeated attacks of phlyctenulosis, or PKC as we began to call it.

Back in the States on terminal leave in 1946 I received a fellowship from the Eye Bank for



Sight Restoration, Inc., and learned to do corneal grafts. In 1947, at the invitation of Alaska's first full-time commissioner of health and a war-time friend, I spent six weeks in the Arctic, a fugitive from New York city private practice, roaming the lovely flower-bedecked Arctic. My mission was determining for Dr. C. E. Albrecht the causes of blindness among the natives of Alaska. Among the over 600 natives fully examined was a 37-year-old Mrs. D. A., then living in a small village near Anchorage. Her vision was very poor due to dense, central corneal scars. She was a brave and handsome woman and I promised that I would do a graft on her eyes if I came back to Alaska. Returning to Anchorage in 1948 I established a private practice and frequently saw Mrs. D. A. and her two children, M. and D., both in the active stages of PKC.

In May, 1948, at Kotzebue, I found M., a 15-year-old schoolgirl with putrid mastoiditis on one side and both eyes unseeing from corneal opacities due to PKC. Vision was 20/300 in each eye. Dr. J. H. T. Rambo of New York was with me. We had E. sent to Anchorage where we were successful in curing the mastoiditis and then had her wait until a useful eye came along for a corneal transplant. Through the cooperation of Dr. R. C. Clark of the U. S. Air Force we received a fresh and useful eye and did the first corneal graft in Alaska in November, 1958. Vision in the operated eye improved to 20/70. The graft is peripherally opaque but the patient is happy with that much improvement. And the graft may be done again if it should cloud over further.

Meanwhile Northwest Airlines established Flight 99 non-stop from New York. I communicated this intelligence to the New York Bank of which the Eye Bank of the Eye, Ear, Nose, and Throat Foundation of Alaska, Inc., is an affiliate. Mrs. A. Carl Competello, Director of the New York Eye Bank, promised to send the next available eye and Mrs. D. A., the patient of 1947, was

alerted at her job in the bakery of the Anchorage USPHS Hospital. She had heard of E's successful operation and was eagerly awaiting her surgery.

Finally a phone call from New York notified us that an eye was on the way and on a Saturday morning in October, 1959, we did a 7 mm full thickness graft using a trephine donated by Dr. R. T. Paton of New York. We used 11 direct edge-to-edge sutures of 7-0 Ethicon braided silk.

The operation, done 12 years after it was promised, went well since I was ably assisted by Dr. M. J. Shoff of the USPHS and my own surgical nurse, Mrs. Levia Childs. Sutures were removed on the 9th day and 18 days later the lady was back at work with a clear graft and uncorrected vision of 20/70 from 20/300 pre-operative.

Public interest, thanks to the papers, radio and television, was high, and we received two eyes from local residents a few days ago. One was used on a 21-year-old young lady promised the operation eight years ago, and the second three days ago on a lady of 29 who had been waiting for her operation since 1955. Both operations went well and we hope that it will become as commonplace—and as successful—as the operations upon patients with mastoiditis. If we can sign up 10,000 members for our Eye Bank we are assured of at least one eye a week. These we need if we are to rehabilitate the 84 Alaska patients (native and non-native alike) who are blind because of their badly scarred corneas.

We have a model Eye Bank law passed by the Territorial Legislature in 1953 without a dissenting vote largely through the efforts of two interested private citizens. We have scores of patients. We have the hospitals, the surgeons, the instruments and the suture materials. What we need is eyes and we hope that all physicians and their patients will join the Eye Bank of the Eye, Ear, Nose and Throat Foundation of Alaska, Inc., Box 808, Anchorage.



# TUNDRA PRACTICE: PRESENT AND FUTURE

*HARRIET JACKSON, M.D.*

*BETHEL*

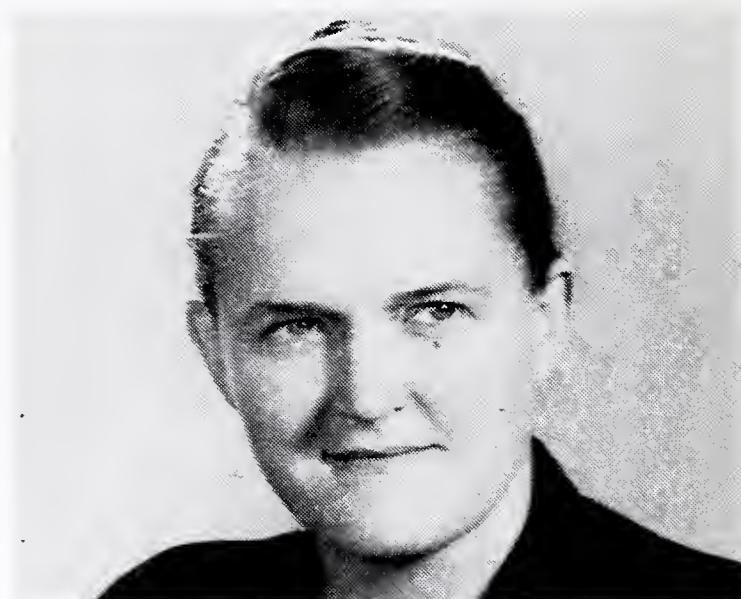
The vast, tundra-covered expanse of Alaska north of the Alaska Peninsula and west of the Alaska Range has, over the years, remained largely the domain of the Eskimos. What medical services have been available have been provided by the government, by missions, or by happenstance.

In the last few years in the small corner of western Alaska with which I am acquainted (an area the size of the state of Kansas) there has developed an increasing population who are not eligible for government care. Also, there are natives who are interested in obtaining private care. The reasons they give include the following: not having to wait so long to be seen, knowing that the same doctor will see them and not another one, and the distance of the hospital from town.

Bethel, a fourth-class city of about 1200 is the center, transportation-wise and to a large extent otherwise, of this Kansas-sized area which contains about 10,000 people, 90% of whom would be eligible for care through the Alaska Native Health Service. In July, 1959, the first private practice was started in the area. Practice in this part of the country has certain peculiarities which seem to make it impressively different to many outsiders. Perhaps some of these peculiarities are worth mentioning along with comments on the long-range needs.

## TRANSPORTATION

No two of the approximately 50 villages within 150 miles of Bethel are connected by road. There are only a few air strips. Urgent transportation is by float plane or ski plane. The common forms of transportation continue to be outboard motor boats and dog teams. One less com-



mon but interesting mode of travel is by snow-plane, essentially a ski plane without wings, utilizing a pusher-type propeller. Road building across the tundra will be a tremendous, though not impossible, job. Perhaps one of the new types of vehicles which propel themselves along just above the ground and water will revolutionize transportation so that patients and help can get together despite weather and darkness.

## COMMUNICATIONS

Though Bethel now has phone connections with the outside world, thanks to the White Alice System, the surrounding towns can get in touch with Bethel only by radio, which is subject to "fits" of poor reception. You may get a call via one or two relaying stations that an almost bedfast, aged man wants you to come to see him 40 miles away. Thanks to the bush pilots this is usually possible, but inevitably you take lots of things you don't need and often leave behind



the medication you later wish you had taken. Hopefully, some better means of communication is forthcoming which will not be so subject to meteorologic and sun spot phenomena.

#### HOSPITALS AND PHYSICIANS

There is a good 60-bed hospital in Bethel, operated by the Alaska Native Health Service, but for the private patient the nearest hospital and consultant is in Anchorage, 400 miles away, by a \$60 one-way plane trip involving altitudes of usually 12,000 feet or more. Fairbanks, almost the same distance away from Bethel as Anchorage, is more difficult to reach by regular scheduled transportation, but can be reached by small plane without climbing to significant altitudes if the weather happens to be good and the pocket-book bulging.

The Bethel hospital staff can and does assist these patients in emergencies, but rather than try to duplicate expensive equipment in outlying areas such as this for the non-government beneficiary, it would seem economical and wise to make arrangements for the hospitals to be available for the use of private patients for non-emergency care. Arrangements regarding fees could be made in a realistic manner so that the tax burden would not increase. This situation in various forms does or will undoubtedly exist in such places as Dillingham, Kotzebue, Barrow, and Tanana.

#### PREVENTIVE MEDICINE

If you look at it in a certain light, my duties as mayor (a position I was elected to this fall) may be considered largely the practice of preventive medicine, both communicable disease and mental health aspects. The city council's chief interests at the moment are a safe water supply, waste disposal, loose dog control and rabies vaccination, and prevention of drunken and disorderly conduct. Dog control is the easiest to tackle, but the water and waste problems get complicated by the 420 feet of permafrost under the town. Neither I nor the other physician on the council remember being properly prepared in medical school for these sanitation problems, perhaps it was because we went to school in large Eastern and Southern cities.

If mercury and oil prospects are developed on this side of the Alaska Range, no doubt there will be need for other private practitioners in the area. They will find, I'm sure, plenty of use for their training and imaginations, but whether the hoped for mineral developments go through or not some of the problems discussed above need attention if the standards of health and medical care of the non-native on the tundra are to be improved.



# *Woman's Auxiliary News*

A news column compiled by

**Mrs. Vernon Cates**

## **PRESIDENT'S MESSAGE**

To Alaska Medical Wives:

You will read in this issue of ALASKA MEDICINE, Mrs. Fitzpatrick's report of her attendance at this conference in Chicago, October 5th thru 7th. The attention and interest, friendliness and helpfulness offered there should engender in us a sense of responsibility as a state organization.

There are still too many eligible doctor's wives in Alaska who do not belong to the Woman's Auxiliary to the Alaska State Medical Association. We can accomplish our aims only if we have your assistance. We need each doctor's wife's help in supporting A.M.E.F., in defeating the Forand bill, and in accomplishing individually in her own community, progress for better health.

If you are a member, won't you make yourself responsible for just one new member this year? If you are not a member just send in your name and address with \$5.00 dues to the Secre-

tary-Treasurer of the Woman's Auxiliary to the Alaska State Medical Association, Mrs. Charles St. John, 2106 Lord Baranof, Anchorage, Alaska.

Every state is working this year to increase its membership. Alaska can achieve 100% membership! Shall this be your goal?

Mrs. Francis Phillips is president Woman's Auxiliary to the Alaska State Medical Association. At the National Woman's Medical Auxiliary Conference held in June of this year, it was agreed to make funds available to a delegate from each of the two new States to attend the Conference of Presidents and Delegates to be held in Chicago in October. A sum of \$250.00 was allocated for each state's delegate to help defray expenses.

Inasmuch as the State Auxiliary officers were unable to attend the conference, Mrs. Marjorie Fitzpatrick, Anchorage Auxiliary President, was appointed Delegate to represent Alaska in Chicago. ●

Mrs. Francis Phillips

## **SIXTEENTH ANNUAL CONFERENCE OF THE WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION**

(A report by Marjorie G. Fitzpatrick, President, Anchorage Medical Auxiliary, who represented the Woman's Auxiliary to the Alaska State Medical Association.)

Sixteenth Annual Conference of the Woman's Auxiliary to the American Medical Association was held at the Drake Hotel, Chicago, Illinois, October 5-7, 1959. This was a conference of State Presidents and Presidents-Elect, and National Officers and Chairmen. The theme for the conference was "Opportunities for Service to the Community."

The conference was called to order by the President of the Women's Auxiliary, Mrs. Frank Gastineau. Roll call was conducted by Mrs. Harold Gay of Michigan, and when Alaska responded with a delegate, the crystal chandelier of the Grand Ballroom was in danger of falling from the thunderous applause. I was requested to come forward for the official introduction and "please make a small speech." I offered the greetings of the Alaska Medical Association, the Woman's Auxiliary and our State President, then presented Mrs. Gastineau with an ivory bilikin, a gift from the Alaska Medical Auxiliary. Our bilikin will reign supreme in the newly remodeled offices of Auxiliary Headquarters in Chicago. Following the recognition of your Alaska delegate, the same wonderful treatment was accorded the Hawaiian delegate.

Fortunately, I had thought to take a good sized Alaska flag and the 49-star flag with me, which I planted firmly in front of me at my table and which created quite a sensation and many requests for the meaning of the flag.

After the roll call was completed, we all settled down to two and one-half days of work. The greeting from the A.M.A. came from Mr. Thomas Hedricks, who stated that "the doctor's wife is the keystone of the arch" of medical public relations.

A two-act play was presented called "Ladies in the Lobby," regarding the Forand Bill or H. R. 4700, which I have discussed in another article (see page 128, Editorial Section, this issue). Act One, entitled "The Ladies Louse It Up," showed the wrong way to approach your elected officials. The second act, "The Women Work Wonders," showed the correct way to discuss this controversial bill which is being considered by the House Ways and Means Committee. A great deal of attention was focused on this Forand Bill during the entire conference. I was surprised to learn that the American Nurses Association has gone on record as being in favor of this bill, and we all felt



that we, as doctor's wives, have missed the boat, so to speak, in keeping up good relations with our local nursing organizations, either as active members if we are nurses or as interested women if we are not nurses.

The AMEF was discussed and explained, and we were reminded that the main purpose of the A.M.A. has been and is to support medical education. The Auxiliaries were reminded that, before any other project, we should support the AMEF. Mrs. Gastineau was presented with a beautiful 1810 silver tureen for her work on behalf of the AMEF. This she has graciously donated to National Headquarters and it is to be awarded each year to the state which raises the most money for the AMEF. Mr. John Hedback, Executive Secretary, AMEF, asked me to thank all of our Auxiliary members for their excellent showing in supporting the AMEF last year. Let us try to top our donation this year and win the right to display this silver trophy in our own state for a year.

The "Membership Sales Promotion Meeting" was excellent and was concerned with selling the Auxiliary to the Medical Society, to the doctors' wives, and to the potential market such as: the doctor's wife who is new to the community, the member-at-large (which answered the problem of our own State Auxiliary with all of us so scattered), the Student American Medical Association member, the doctor's wife who prefers other organizations, and finally, how to keep the "customer" satisfied. We were reminded, not of the old adage that "the early bird gets the worm," but that we must be "the fustest with the mostest" in order to get and hold members who might become involved with other organizations or drop out of the Auxiliary while our membership committee is dragging its heels.

We started our Tuesday meetings with Regional Membership breakfasts and Alaska was included in the Western region. Many problems peculiar to Western States were discussed, not all pertinent to Alaska, but the problem of distance between towns and cities, and Auxiliary members, was shared by all of us. It was suggested that, in order to keep our members in outlying areas in closer contact with us, the President and President-Elect write personal letters to these members and that we have periodic news letters go out from our State officers. The suggestion was also made that these scattered and isolated members become "members-at-large" and participate in projects being held in the closest city or town by sewing for bazaars, making Christmas cakes or cookies that could be mailed, this again keeping the "member-at-large" in closer contact with other Auxiliaries and members.

Following the regional breakfast, the entire delegation was called to order. Under "Community Service Implementation," Mr. George Cooley discussed the A.M.A. Program for the Aging. Many regional conferences are being held, under the auspices of the A.M.A. on "Caring for the Aged" and all Auxiliary members were invited to attend these conferences. A positive approach to Mental Health was given by Dr. Hugh Carmichael, and Dr. Irving Sunshine spoke on the Safety Program in the home. Dr. Sunshine is Technical Director of the Cleveland Academy of Medicine Poison Information Center and has safety slides and manuscripts available for loan to states desiring to work on a safety program.

The next item on the program was Paramedical Careers Recruitment but was, perhaps, more pertinent for states with schools and colleges for training in the

medical and allied fields than for Alaska. However, one interesting point is that National Foundation Health Scholarships are available to each state and each state can be allocated five such scholarships. This would be something for us to look into since these scholarships are available in Nursing, Occupational Therapy, Physical, Medical Social Work and Medicine.

The Oklahoma delegates were most interested in Alaska and informed me that their two-day State Convention would feature an "Alaska Day" and "Aloha Hawaii Day," the latter part of October. I turned over to the delegates several Alaska magazines, Alaska flags and Bilikin key chains (which I took as gifts for the other state delegates after consultation with our State President), the words to our state song, "Alaska's Flag," and the history of the Alaska flag. All of these things were to be displayed at their convention the 26th and 27th of October.

Wednesday we were shown a film produced for the A.M.A., entitled "I Am a Doctor." The film may be borrowed from the A.M.A. to be shown in local high schools to students interested in medicine as a career. The suggestion was made that a local physician be on hand to answer any questions that might come up after the showing.

The final hour of the conference was listed as a "Clinic for Auxiliary Problems" and consisted of a series of questions asked of a panel of National Committee Chairmen. Most of the questions were regarding the material that had been covered during the conference and were reaffirmations of previous answers given.

I came away from this conference, not only with my head spinning, but wondering how we can increase our State and local Auxiliary memberships and how we can better sell the Auxiliary as a service organization rather than a "social" club. If we are to abide by the Constitution and By-Laws of the National Auxiliary, then we must continue to grow and expand as a service organization. Not only must we cultivate friendly relations and promote mutual understanding among M.D. wives, but we must also support the A.M.A. in its programs for the advancement of medicine and good public health, the AMEF in its program to improve and expand medical education and still accept the aim of the Woman's Auxiliary of "better health through community service." We must remember that "by our deeds are our husbands judged." Let us by all means be community minded but let us also reach out and support the aims and ideals of the American Medical Association to which we are the Woman's Auxiliary.

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## LOCAL AUXILIARY NEWS

### Anchorage

The Anchorage Medical Auxiliary has had two enthusiastic meetings this fall heretofore. A sum of \$245.00 was cleared on a rummage sale held in October. A toy and jewelry party was held November 12th, and a gift wrapping class is to be combined with a late November meeting. Plans are under way for the annual Christmas Bazaar which is to be held on December 5th.

Some members have been working on Bazaar items for the past year.

Thus far we have agreed to donate funds to the local hospital fund and to A.M.E.F. and have pledged our assistance to other organizations.

### Fairbanks

The Fairbanks Auxiliary has had two meetings this fall. We hold our meetings on the second Friday of the month at the same time our husbands hold their monthly meeting. We enjoy dinner along with our husbands in a private dining room at Travelers Inn. After dinner the women retire to a corner of the public dining room for after dinner coffee and their meeting while the doctors conduct their business in the private dining room. This arrangement seems to be working out the best for us.

Our next project in Fairbanks will be an A.M.E.F. dinner to be given sometime after Christmas, but before the State Convention in Anchorage. The definite date will soon be set. The dinner will be held at the home of Dr. and Mrs. Joseph Ribar. As an added attraction for the evening, we will be shown pictures by Dr. and Mrs. Schaible of their trip to Africa last year. We are looking forward to a pleasant evening and a nice sum to be added to the A.M.E.F. fund.

This summer we had a barbecue, for the A.M.E.F., at the home of Dr. and Mrs. Fate. As a result of this, the Fairbanks Auxiliary deposited \$65.00 in the State Auxiliary Account for the A.M.E.F. ●

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### CHIT CHAT

ANCHORAGE—Dr. and Mrs. C. E. Chenoweth have returned from an extended trip to visit family members in Iowa. Their daughter is in charge of a special training school for handicapped children there.

The Drs. Richard Chao welcomed their third daughter in August.

Dr. and Mrs. Rodman Wilson recently flew the polar route to Copenhagen, Denmark. They plan to spend some time in Madrid and then a flight to Baltimore to visit Mrs. Wilson's father will complete their vacation.

Dr. A. Claire Renn spent a recent and most enjoyable vacation in Hawaii.

Dr. and Mrs. Michael Beirne are parents of a new son, Mark, born in Anchorage recently.

Drs. John and Betsy Tower flew to Haines

recently where Dr. Betsy is on the board of Haines House, this being an in-patient house for Eskimo and Indian children. Upon leaving Haines they were able to fly as far as Burwash Landing but clouds then forced them to return. The following day, after another departure, they were again forced to return to the field because of water in the fuel. Dr. John then returned to Anchorage flying alone—reporting good service at both Snag and Northway. Dr. Betsy returned by car!

Dr. Edwin Kraft, a one-time commercial airlines pilot, recently flew his own plane along the coast from San Francisco to Juneau.

Miss June Green, originally from London, England, and Dr. Glen Crawford of Anchorage were married recently.

FAIRBANKS—With regard to "Paramedical Career Recruitment," Mrs. Paul Haggland, serving as a chairman for local Business and Professional Women's Club and in connection with Rotary and Soroptimist Clubs, has been working with schools on career advancement including the various branches of "Paramedical."

Dr. Haggland spent some time with his twin sons recently, one being in pre-medicine at the University of Washington and the other studying pre-medicine at the University of Oregon.

"Fairbanks' loss is Uncle Sam's gain." Dr. and Mrs. Kenneth Kaisch have left Alaska and Dr. Kaisch has rejoined the army.

HAINES—Dr. and Mrs. Phillip Jones have been living in Haines fourteen months following a two-year tour of duty with the Air Force at Elmendorf. Dr. Jones has his private practice there and also is the physician for Haines House.

HOMER — A new daughter, Heidi, joins brother Eric in the family of Dr. and Mrs. John Fenger.

JUNEAU — Mrs. Harry Gibson suffered a fractured pelvis and head injuries as the result of a fall while visiting her daughter in Sacramento. After several weeks of hospitalization in that city, she is now recuperating satisfactorily at her daughter's home.

MT. EDGE CUMBE — Mrs. David Sparling accompanied her husband to Chicago in October to the American Academy of Pediatrics, held at the Palmer House. Mrs. Sparling then visited her parents in Illinois.

SEWARD—Mrs. Joseph Deisher is working with and helping to reorganize the Health Council of Seward. ●



# *Muktuk Morsels*

A column devoted to medical news in Alaska, compiled by

**HELEN S. WHALEY, M.D.**

## **GENERAL**

### ***Smith Kline & French, "March of Medicine"***

A televised view of the unique practice of medicine in the Far North is scheduled for nationwide presentation sometime during the early spring of 1960. In cooperation with the Alaska Department of Health and the United States Public Health Service's Alaska Native Health program, Smith, Kline and French will televise an orthopedic clinic in Bethel on December 9th, 10th, and 11th. Dr. William J. Mills, orthopedic consultant for the Alaska Department of Health, will head this team. The tentative program outlined is to include views of Bethel, the hospital, and some of the outlying villages. It is planned to include several sequences of the famed medical broadcasts during which school teachers, chemotherapy aids, ministers, etc., in isolated villages call into the Bethel hospital for medical advice for sick village patients. An actual series of orthopedic clinic scenes will be filmed, including the examinations, fitting of braces, and the taking of a history and the explaining of special exercises to the patient and his family often with the help of a native interpreter. The various modes of patient transportation used during the winter, including the bush pilot, and the dog drawn sled, which uses the frozen Kuskokwim River as a highway, will be shown.

### ***Three Communities are Without Physicians:***

At the present time there are three communities in Alaska without the services of a physician. Skagway, in Southeastern Alaska, has a population of approximately 700 permanent residents. Dr. William R. Coleman, who has practiced in Skagway since April, 1958, has moved to Fairbanks and will join Dr. Henry Storrs of that community in practice. At present Dr. Phillip Jones of Haines is flying to Skagway several times a week. Physicians interested in this community may contact the White Pass and Yukon Railway Hospital at Skagway.

Wrangell, a fishing community in Southeast-

ern Alaska is still without the services of a permanent physician since the departure of Dr. John Bangeman. Sitka physicians have provided interim medical care.

As mentioned in an editorial in the last issue, Valdez, a tourist community of approximately 500 persons, has been without the services of a permanent physician for several years.

## **LOCAL NEWS**

**FAIRBANKS:** Fairbanks physicians continue to participate in a number of community activities. Dr. Paul Haggland, who attended an orthopedic meeting recently in Denver, has one year to complete as mayor of the community. During the recent elections, Dr. Joseph Ribar became a member of the City Council. Dr. James A. Lundquist is completing his last year as treasurer of the School Board. He and Dr. Lawrence Dunlap will be moving into a new clinic office building shortly after the first of the year and will be joined by Dr. Jim Dunlap this coming summer, who is completing a surgery residency at the Good Samaritan Hospital in Portland, Oregon. Dr. Lawrence Dunlap is serving as the interim president of the staff at St. Joseph's Hospital since the departure of Dr. Kenneth Kaisch. Fairbanks representative at the Heart Association postgraduate course at the University of Washington in Seattle was Dr. Joseph Ribar. Dr. Henry Storrs attended the American College of Surgeons meeting in Atlantic City in September.

After many years of E.E.N.T. practice, Dr. Hugh Fate is retiring. He is the only physician in this specialty north of Anchorage, and has cared for patients from Fairbanks to Point Barrow and from Fort Yukon to the Bering Sea. In addition to his private practice, he has served as the consultant for all of the Alaska Department of Health E.E.N.T. programs. In 1958, he was president of the Territorial Medical Association.

**BETHEL:** In the recent city elections Dr. Harriet Jackson became the mayor and Dr. Jean Persons, secretary, of the Bethel City Council.

Their problems include such public health measures as obtaining an adequate safe water supply and finding ways of promoting safe garbage and sewage disposal. These present major problems in many Arctic communities because of the permafrost. For a number of years the Arctic Health Research Center with headquarters in Anchorage, has been studying more feasible methods of dealing with these problems in the Far North, and have concentrated on the Bethel area because of the relatively dense population.

Dr. George Wagnon attended a meeting of all of the medical officers in charge of the various field hospitals of the Alaska Native Service in early October in Anchorage. He was accompanied by his wife, who took advantage of the trip to take her private pilot's test, so that she can join her husband as a private pilot.

SEWARD: The daily census at the Seward Sanitarium has doubled during the past year, according to Dr. Ernest Gentles from 17 to approximately 37 patients. Part of this marked increase has been due to increased case finding of active pulmonary tuberculosis among the white population. All native tuberculosis patients are hospitalized at the United States Public Health Service facilities. However, the Sanitarium has also admitted patients with other chronic pulmonary diseases such as emphysema and more recently, patients with chronic diseases such as cancer.

Because of the scarcity of available patient beds at Providence Hospital in Anchorage, a number of patients requiring long-term-hospitalization have been transferred to the Seward General Hospital in recent months.

Dr. Paul Isaak has joined the rapidly growing ranks of Alaskan private pilots.

ANCHORAGE: Dr. Edwin Wicks has assumed the duties of Medical Health Officer or both the Southcentral and Northern regions of the Alaska Department of Health. This area includes essentially all of the state from Point Barrow to the Valdez region. Dr. Francis Phillips is serving as the part time director of the Greater Anchorage Health District for Dr. Wicks, who formerly held this position. In addition to these duties, Dr. Phillips, who has recently returned from the Colorado meeting of the Western Branch of the National Tuberculosis Association where he gave a paper on the "Treatment of Tuberculosis in Remote Regions," was appointed by Governor Egan to a committee to study the problems of aging in Alaska.

Anchorage physicians have also been active in a number of community activities. Recently elected president of the World Affairs Council is Dr. Merritt Starr. Dr. Robert Wilkins is serving as president of the Anchorage Concert Association. He recently returned from a National Heart Association meeting in Philadelphia. During this trip he also attended a meeting on the feasibility of setting up a Blue Shield type medical plan in the state of Alaska. In the field of sports Dr. Calvin Johnson has become president of the recently reorganized Anchorage Basketball Association. The new president of the Anchorage Unit of the American Cancer Association is Dr. Winthrop Fish, an internist, who was Alaska's delegate to the Cancer Association meeting in New York City.

In cooperation with the Department of Medicine at the University of Washington School of Medicine, Dr. Louise Ormond recently went to Point Barrow to obtain blood samples from several hundred residents to help in further defining the enzymatic structure of the Eskimo. In addition she served as the acting medical officer in charge during the absence of Dr. George Walter, who was attending an M.O.C. conference in Anchorage. In cooperation with the National Institute of Health, Dr. Ruth Coffin, Chief of Medicine at the Anchorage Alaska Native Service Hospital, is attempting to determine the incidence of ulcers in coastal Eskimos, who ingest a large amount of seaweed. This study is being undertaken because of the recent reports of the beneficial effects of seaweed on peptic ulcers.

JUNEAU: Dr. Henry Wilde attended the Washington State Heart Association's annual symposium on October 16th and 17th at the University of Washington.

In his capacity as Chairman of the Alaska Judicial Council, Dr. William Whitehead recently visited Anchorage where he was the honored guest at the October meeting of the Anchorage Medical Society.

In September Dr. C. C. Carter was singled out for honors by the Juneau American Legion Post.

SITKA: Dr. Edward Spencer has been appointed to serve on the 22 member Alaska Committee on Aging in connection with the forthcoming White House Conference scheduled for January 9-13, 1961. This committee is composed of community leaders from all over Alaska and includes ministers, public health nurses, etc. ●



# Letters to the Editors . . .

## "A QUESTION OF SCIENCE"

(Editor's Note: The following is a letter from Dr. Andrew C. Ivy, Ph.D., M.D., D.Sc., LL.D., F.A.C.P., Distinguished Professor of Physiology and Head of the Department of Clinical Science, University of Illinois, Chicago, Illinois.)

I (Dr. A. C. Ivy) desire to express my personal appreciation to Dr. Merritt P. Starr for the letter he wrote entitled "A Question of Freedom" and to you, the Editors of *Alaska Medicine*, for publishing the letter<sup>(1)</sup>.

The basic allegations which Dr. Starr attributes to me and the Krebiozen Research Foundation have been and can again be established by documentary evidence, by affidavits, and by testimony given under oath. These charges have never been denied by the presentation of evidence under oath. This means that the only report<sup>(2)</sup> actually presenting evidence to the effect that Krebiozen has no value is in part fraudulent and completely unscientific. I believe that that report was published primarily for political reasons, and that the controversy has been and is being continued primarily for political reasons, chiefly "face saving."

It is not being continued for scientific reasons. Because, since 1952, I have proposed on several occasions that a strictly scientific method be used to answer the only question of any basic merit, namely: "Is Krebiozen (a lipopolysaccharide) of any value in the management of the advanced cancer patient?"

I and the Krebiozen Research Foundation have urged that an arbitration type of committee be appointed, two members by the A.M.A., or American Cancer Society, or National Cancer Institute, two members by the Krebiozen Research Foundation, and that the four appoint a fifth member. Such a committee is urged on the basis of the assumption that both parties to the controversy may be prejudiced. (That certain officials of the A.M.A., American Cancer Society,

county medical societies and hospital staffs have been and are prejudiced can be proven. Yes, an arbitration committee is unusual, but the Krebiozen situation is very unusual. To condemn the arbitration type of committee because it is unusual is a "dodge" or excuse, because the only urgent objective is to settle the controversy scientifically. An arbitration type of committee is the only type of committee which could design and conduct a study without the suspicion of the operation of prejudice. The committee would then design and conduct a "double or triple-blind" type of study, in which I (A.C.I.) would serve as a consultant to the attending physicians. (It has to be granted that I have had more experience than anyone in administering the lipopolysaccharide and in contemplating on the theory of the action of the drug. This is sound pedagogical theory and, heretofore, in the case of all my scientific discoveries or works, I have had the privilege of demonstrating publicly at scientific meetings the truth of my claims. Krebiozen represents the only instance where I have been prevented from doing so.)

I should add that I and the Krebiozen Research Foundation have refused to cooperate with a test proposed by the National Cancer Institute (NCI) in which a "committee to be appointed solely by the NCI" was proposed with the right to review our records before deciding to do a test. With certain stipulations we could cooperate with the committee proposed by the NCI but not until it was agreed that a test would be done. Then, our records and those of the A.M.A. would be studied. To leave the question of whether a full-scale investigation should be undertaken at all is to place the **ultimate** question before a committee instead of the results of a **bona fide** study. We have no absolute faith in committee opinions but do have in the results of an honest investigation.

We have accepted an "arbitration committee proposal" of Senator Paul Douglas of Illinois and of the **Chicago Daily News**.

**WHAT IS AT STAKE?** A new approach to the theory of the treatment of cancer. This statement requires explanation. There now exists only one real observation on which to base a rational hope that "a cure" for advanced cancer can be found. That observation is that in 1 out of 50,000 or 100,000 cases of advanced cancer the body cures itself of cancer. This fact constitutes one aspect of the physiological theory, now well established<sup>(3)</sup>, that the body possesses natural defenses against the development and progress of cancer, and that these processes may be manipulated so as to increase or decrease the body resistance.

Krebiozen represents the first therapeutic substance developed and applied on the basis of this theory in man. It is a natural substance, a hormone; not an artificial substance. It is non-toxic because it theoretically operates normally in the reparative and not the reactive stages of the repair of an injury. So far the lipopolysaccharide, Krebiozen, acts in a striking manner only on tumors in man. (It acts strikingly to clear cataract in most dogs, which is the only animal assay method known for this substance.) So, a definitive test on man, free from the suspicion of the operation of prejudice is essential for a test of this **new approach**.

We have been and are exploring a **new horizon** and have observed signs which should be exploited because they may lead to "the cure" of advanced cancer. Krebiozen or this lipopolysaccharide represents only an open door to a new but rapidly developing field in biology<sup>(4)</sup>.

**WHAT OBSERVATIONS HAVE BEEN MADE ON THIS NEW HORIZON?** A few of these observations have been summarized in a preliminary manner in a small monograph<sup>(5)</sup>. In a controlled study on pain, 72% of 261 patients who knew they were receiving Krebiozen and 68% of 184 who did not, had less pain for a variable period of time. The relief was remarkable in about 30%. Ambulatory life was prolonged in approximately 25% of patients who were bedridden or only up some of the time. Among some 500 patients in whom treatment was started prior to 4 to 8 years ago, 10% survived from 4 to 9 years. We have a group of seven patients who were surgically opened, a biopsy made and then closed without treatment during the operation and without any treatment being given after closure except Krebiozen, and who have been opened again at a later date without evidence of cancer being

found. Among the last 10 patients with advanced brain tumor (glioma or astrocytoma) I have personally treated, all have manifested decided improvement, and among the 10, 8 are still alive for from 1 to 5 years.

Regardless of how others may interpret such observations, I shall continue to interpret them as being due in most instances to the therapeutic action of the lipopolysaccharide administered, and shall continue to request that I be given an opportunity to demonstrate either the truth or the untruth of our interpretation. The only alternative will be to erode slowly the opposition by more and more evidence, which will unfortunately add to the ever increasing desire of the public to know the truth, to settle the controversy.

In view of these considerations I should like to emphasize the great responsibility which now confronts the profession. It is and has been my considered and sincere conviction that **Krebiozen** represents the only presently available fruit of this **new understanding** of the problem of cancer. It has already been withheld unnecessarily for several years from many cancer patients whom it might help, through no fault of our own but by the excuses of pseudo-critics. The extent of the delay in the decision to perform a test free of the suspicion of the operation of prejudice will determine the extent to which Krebiozen will be withheld from use in cancer therapy; that is, until other workers slowly and laboriously duplicate our work **in toto**. This decision is a grave responsibility.

Obviously, I have not to-date deserted and will not in the future desert what I consider to be my duty as a scientist and human being. That is, to prevent the truth from being buried under partly falsified and completely unscientific evidence.

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Andrew C. Ivy, M.D., Chicago



# Editorial Page . . .

## MEDICAL RESEARCH IN ALASKA

An "outsider" might well ask if medical research could be done effectively in Alaska, and in any case, to what point? As with most activities here, investigative work is met with many difficulties, including high costs and problems with transportation and communication. These problems are compounded by the small scattered population and by lack of concentrated, highly specialized medical facilities. There are, however, unique challenges and opportunities. Physicians in Alaska should be aware of both.

If asked, our hypothetical "outsider" would surely choose cold as the most characteristic feature of Alaska—it **does** get cold.

In the treeless tundra and in the cold interior where the subsoil is permanently frozen, health problems multiply with each increase in population. Procurement of adequate amounts of safe water and the removal of waste products of all kinds are formidable challenges to the sanitary engineer and to the Public Health officer. The provision of adequate living space with available structural materials and the heating and ventilation of these remain unsatisfactory, largely because of cost factors. Adequate answers to these problems would no doubt reduce appreciably the high incidence of respiratory and enteric infectious disease. Although much remains to be done, the U. S. Public Health Service, through its Arctic Health Research Center, has already made significant contributions. Alaskan military forces are also actively contributing to research in this field, as well as improving clothing and field shelter to enable men to live outdoors (and fight) under arctic conditions. The recent medical interest in hypothermic states, stimulated by their obvious usefulness in central nervous system and cardio-vascular surgery, has given a renewed impetus to this field. Only a small start has been

made, however, in delineating the basic ways in which man and animals adjust physiologically to a cold environment, and to the ultimate significance of these adaptations to our life in Alaska.

Another fascinating aspect of arctic life is the disruptive effect of the periods of prolonged summer light and winter darkness on basic biological rhythms. Interest in the daily cyclic changes in many physiologic functions ran high several decades ago but little can be found on these subjects in recent medical and physiologic literature. With new techniques now available, such as the use of tracer elements, chromatography, photofluorometry, and other sensitive assay methods, many measurements previously impractical or impossible, may now be accurately made.

A "new look" at this relatively blank area can profitably be taken in the ready made laboratory which the arctic provides, for in summer and winter the large native population is essentially without any fixed daily rhythm in eating, sleeping, and other activity, whereas in spring and fall the normal daily living habits common to most of the globe are followed. Fundamental information about the endocrine and metabolic cycles under these conditions is needed. Perhaps too, some light may be played on the causes for the high rates for suicide and alcoholism seemingly common throughout the far north.

By far the most important resource which the arctic may provide, however, is its human population. Although relatively small by global standards and widely scattered and difficult of access, the native population of the arctic has constituted, until recently at least, one of the few culturally and ethnically stable human groups. There are few populations elsewhere where rates of participation of 98% or better may be achieved on essentially a whole sample. Such a wholesale resource should not be squandered, but should be properly utilized in studies where these special

characteristics of population stability over a generation or more and of reliable follow-up are essential, and for those studies dealing with the specific problems of the arctic. The Alaska native is an intelligent and friendly person who has the further valuable qualification of usually speaking English. He has been in the past quite cooperative in medical studies. Through his experiences with activities such as the tuberculosis control program he has come to regard the physician, the sanitarian and the public health nurse as valuable friends. It is essential that research activities among the native group be so conducted as not to disrupt this valuable relationship. There is

considerable need for more work on basic research questions and in major medical problems of this area including tuberculosis, ear, nose and throat infections, phlyctenular keratoconjunctivitis, parasitic infections and nutrition. Much work is being done by the Federal and State Health authorities. Some can be done by the expedition type of research team. There is nevertheless an inviting opportunity for private physicians in Alaska to make valuable contributions to basic research and to a solution of our pressing medical problems. ●

**Robert D. Whaley, M.D., Assistant Editor.**

## **THE PILL THAT COULD CHANGE AMERICA**

(Editor's Note: The following editorial was an article written for the Woman's Auxiliary section by Mrs. Marjorie G. Fitzpatrick, R.N., President of the Anchorage Women's Auxiliary. The message was considered sufficiently important and so clearly stated that it is printed here with the permission of the Editor of the Woman's Auxiliary News.)

The "pill" that could change America is a bill now before the House Ways and Means Committee, known officially as H.R. 4700.

H.R. 4700 is the Forand Bill, which was introduced by Democratic Representative Aimee J. Forand of Rhode Island, and is an attempt to "amend the Social Security Act to provide for the Federal purchase of certain health care services for social security beneficiaries."

The pill that would be doled out to Social Security beneficiaries would be paid for by the government (out of your taxes), and prescribed by a doctor who works—not for the patient—but for the government.

We all know that no government service is free. Therefore, it is up to us, as Auxiliary members to our State Medical Society, to see that the true facts of this bill are understood by all of us and that we appraise our elected officials of our feelings on the subject.

The Forand Bill will become a definite political issue and the eventual outcome will depend on whom we elect at the polls. While we all agree that our primary aim in medicine is for better health and medical care for every person in this

country, we know that we are better able to serve our fellow countrymen and patients if we do not have the Government regulating our every move.

Remember, socialized medicine is not a new concept. Countries with strong central governments have had government-run medical plans for years. As examples we can point to Germany and England. This effort to force Socialized Medicine down our throats is not new this year, the first proposals having been made in this country 20 years ago. And the proposals will continue to be made, each time wrapped in a more attractive looking package to lull the innocent and unenlightened into feeling "this is good for all Americans." Remember, too, that health cannot be insured, therefore this plan is not health insurance.

This is the "yours is mine" philosophers push for "free" medical service. Actually it is free to no one, since all will pay in accordance with their income, regardless of whether they ever need or use this government service.

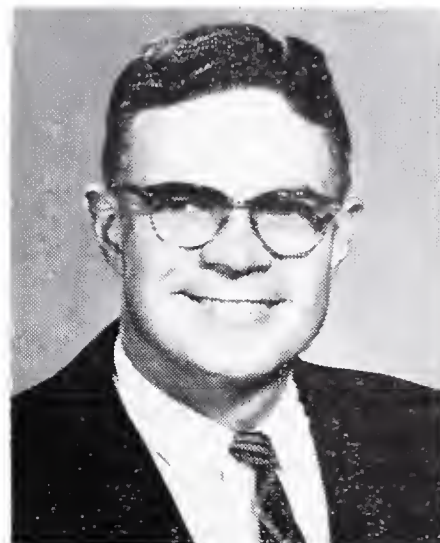
Please! To defeat bill H.R. 4700, learn the full story of it, talk to your friends about it and bring the greatest pressure to bear on your elected officials at the grass roots level of home.

We, of the Medical Auxiliary, are asked to become a "leverage group" in our home towns, and as the pressure builds in each town so it will build in proportion in the State. We must defeat this bill. This is the Principal Crisis for the next year. ●

**Marjorie G. Fitzpatrick, R.N.**



## President's Page



Let me give each of you a cordial invitation to attend the next Alaska State Medical Association Convention at Anchorage, February 18, 19 and 20th of 1960. This is in the middle of the Anchorage Fur Rendezvous, so there should be many events before and after the convention to make a visit to Anchorage interesting. Also, some of the convention evenings will be free for Fur Rendezvous events. These include the Miners' and Trappers' Ball, Eskimo dances and the Queen Contest Pageant.

Already he have a number of very interesting speakers planning to be here including Dr. Louis Orr, President of the American Medical Association; Dr. Herbert Griswold, Professor of Medicine, University of Oregon Medical School; Dr. Fount Richardson, President of the American Academy of General Practice; Dr. James Miller of the Mason Clinic; Dr. Russell de Alvarez, Professor of Obstetrics and Gynecology, University of Washington School of Medicine; Dr. John Schenken, Pathologist from Omaha, Nebraska, representing the American Cancer Society; and Dr. Julius Wilson of the American Trudeau Society. We are also looking forward to having our Alaska doctors on the program. If you have a paper to present, please give us notice as soon as possible. For each paper presented, we are requesting a title and a one hundred-word summary which will be included in the program.

If you are planning to come to the convention, please write to Dr. Charles St. John, 501 L Street, Anchorage, Alaska, as soon as possible

and tell him of your housing requirements since he is Chairman of the Housing Committee. Other committee chairmen appointed so far include: Publicity, Dr. Michael Beirne; Banquet, Dr. Robert Wilkins; Transportation, Dr. Lester Margetts; Resolutions, Dr. William Mills; and Convention Manager, Dr. Rodman Wilson. I will be program chairman.

Committees which have been appointed in recent months include the School Health Committee of which Dr. Joseph Deisher is chairman. Members of the committee are Dr. John Tower, Dr. Ralph Carr, Dr. John Fenger and Dr. Lawrence Dunlap. Dr. Henry Wilde is chairman of the Rehabilitation Committee and his committee members include Dr. William Woodcock, Dr. Russell Smith and Dr. Francis Phillips. Dr. Jack Gibson is chairman of the Emergency Medical Care and Civil Defense Committee. His committee members include Dr. Henry Wilde, Dr. Frank Montmorency and Dr. Henry Storrs. Dr. Charles Chenoweth is chairman of the Committee on Aging and his committeemen include Dr. Arthur Wilson, Dr. A. Holmes Johnson and Dr. John Clements.

It has certainly been a great pleasure to work as your President during the past months. The state convention is the high point of the year and from all indications, we are going to have a very pleasant and stimulating time together. I hope that practically every doctor in the state can attend the convention. Best regards until we meet in February.

**GEORGE E. HALE, M.D., President**

*Alaska State Medical Association, 1959-1960*

# *U. S. Public Health Service News*

## **DIVISION OF INDIAN HEALTH ALASKA NATIVE HEALTH SERVICE**

Dr. Kazumi Kasuga was appointed Medical Officer in Charge of the Alaska Native Health Service Area Office at Anchorage on August 29, 1959, succeeding Dr. Joseph A. Gallagher who was transferred to the Central office of the Division of Indian Health in Washington, D. C.

A specialist in pulmonary diseases and internal medicine, Dr. Kasuga has been at the Indian Hospital in Tacoma, Washington, since 1946. He was commissioned Senior Surgeon in the Regular Corps of the Public Health Service in August, 1957, and promoted to Medical Director in April, 1959. At Tacoma he first served as Chief of the Tuberculosis Service for the Bureau of Indian Affairs. Following the transfer of the Indian Health Program to the Public Health Service, and the conversion of the Tacoma Hospital to a Tuberculosis Sanatorium, he served as Clinical Director for the hospital. He became Deputy Medical Officer in Charge in 1957, and had been Medical Officer in Charge since June 1, 1959.

During World War II he served as Medical Officer in the War Relocation Authority and the U. S. Army Medical Corps. He also has been an instructor in Medicine at the University of California School of Medicine, from which he was graduated in 1938.

Dr. Kasuga is a member of the American Medical Association, The American Trudeau Society, and the American College of Chest Physicians.

Dr. Kasuga served his internship and medical residency at the San Francisco (California) City and County Hospital. Dr. and Mrs. Kasuga have two children: Sidney, age 19, and Joyce, age 15.

Dr. James A. Hunter, Jr., a career officer in the Public Health Service assumed the duties of Medical Officer in Charge of the Alaska Native Hospital in Anchorage October 2, 1959.

In his new post Dr. Hunter will work under Dr. K. Kasuga. Dr. Hunter has been with the Public Health Service since 1941 and holds the rank of Medical Director. Before coming to Anchorage he was Clinical Director at the Federal

Medical Center in Springfield, Missouri. He has also served as Medical Officer in Charge of the Service's hospital in Detroit, Michigan.

A graduate of Baylor and Texas universities, Dr. Hunter served with the Coast Guard in the Pacific during World War II and participated in the Byrd expedition to Antarctica in 1946 as a Medical Officer.

Dr. Hunter is currently residing at 2503 East 20th Avenue in City View with his wife and three children.

Another addition to our staff is Dr. Mahlon Shoff who entered on duty September 29, 1959, and was assigned as Chief of the EENT Department of Anchorage Hospital. He was formerly assigned to the Public Health Service Hospital at Staten Island, New York.

### **Field News**

MOCs of all Public Health Service, Alaska Native Hospitals will be coming into Anchorage the week of February 15 for a semi-annual meeting. This meeting will overlap with the Alaska State Medical Association meeting and a special program presented by Dr. George A. Adams, Chief, Operational Methods Section, Cancer Control Program, Bureau of State Services, U. S. Public Health Service. Dr. Paul A. Young, Assistant Clinical Professor of Gynecology at the Harvard Medical School and Dr. John W. Cashman, Acting Chief, Program Services Section, Cancer Control Program, Division of Special Health Services, U. S. Public Health Service, will also speak to the Association. On the evening of February 19 these doctors will give demonstrations including one of various cervical biopsy techniques, at the Anchorage, PHS Alaska Native Hospital.

Expansion of Field Health Clinics is being initiated at the present. Regularly scheduled monthly clinics will be held at over twenty-two villages with several times that many being covered on a less frequent basis, the emphasis being on preventive health services. These clinics will range from Wainwright, in the north, to Unalakleet, on the Aleutian Chain.



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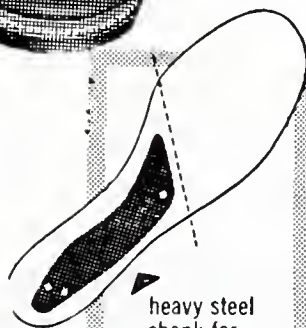


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Official Journal  
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Vol. II  
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# FROSTBITE: EXPERIENCE WITH RAPID REWARMING AND ULTRASONIC THERAPY\*

WILLIAM J. MILLS, JR., M.D. and ROBERT WHALEY, M.D.

ANCHORAGE

## Part 1

### I. INTRODUCTION

Cold injury, a major medical problem of the military surgeon in time of war, is at any time a matter of concern to the physician in the Arctic and sub-Arctic areas. Cold trauma is of worldwide occurrence and encompasses the patterns of chilblains, immersion foot, trench foot and frostbite<sup>(1)</sup>. It may occur even in tropical latitudes in mountainous terrain where an arctic environment may be found, and in tropical waters after long immersion. In the event of a rare catastrophe, high altitude flight provides a setting for severe cold injuries where the complications of anoxia, itself thought to be a predisposing factor by some authors, is often present.

Reports of injury from cold may be found in most Alaska hospital records. The general experience indicates that frostbite or true freezing of tissue is the commonest form of cold injury treated in Alaska<sup>(2)</sup>. Here one naturally expects and finds this injury most common in winter, but hunters and mountain climbers have fallen victims even in July and August.

An examination of hospital records, and discussions with physicians, both civilian and military, throughout the state, have demonstrated much disagreement in methods of management of the injury. Here and elsewhere frostbite has been treated by such highly variable methods as packing the part in ice, primary application of pressure dressings, sympathetic block, insulation of the affected part at room temperature, and by the application of local heat in many forms, in-



Dr. Whaley

L Dr. Mills

cluding the use of diathermy<sup>(1, 3-9)</sup>. Adjunctive measures have included sympathectomy, sympathetic block, anti-coagulants, antibiotics, vasodilators, corticosteroids and combinations of these. Early or late debridement and/or amputation has frequently been a part of these variable programs<sup>(4, 10-11)</sup>.

Some variation in treatment may be expected in a group of physicians and the individual cases may demand some adjustment of methods. It would seem, however, that the latitude of treatment permitted between packing the part in ice on the one hand and immersing it in a warm water bath on the other, or between considered watchful neglect on one hand and early amputation above the site of demarcation on the other could profitably be narrowed.

The purpose of this paper is to report our initial experiences with frostbite and to review such current opinion in the field as may be of

\*Editor's Note: This is the first of three parts; Parts 2 and 3 will be published in the June and September issues.

interest to Alaskan physicians. The interest of the authors in this problem was aroused early in 1955 by a group of patients who had sustained clinical frostbite, and all of whom had undergone amputation of one or both of the lower extremities at levels varying up to the low thigh. We were stimulated to try to find some treatment that would minimize or eliminate such severe losses.

This concept has been re-enforced after treatment of a number of cases of frostbite at the Alaska Native Hospital and in Providence Hospital in Anchorage. A series of cases will be presented in which the treatment consisted of early or delayed rewarming of the involved part, scrupulous protection of the injured extremity from trauma and infection, the avoidance of unnecessary debridement or amputation, and the early institution of physiotherapy, both active and passive, and in most cases the use of ultra high frequency sound in a water bath during the critical first three weeks. Serial serum glutamic-oxaloacetic transaminase and other enzyme determinations were used as additional objective measures of deep injury.

## II. BACKGROUND

Frostbite may be defined as the cooling of body tissue to the point of ice crystal formation<sup>(12)</sup>. There have been numerous classifications of frostbite as to severity, the duration of exposure, the type of cold (wet or dry), the rapidity of freezing and other factors. Further, it has been customary to classify the injury in "degrees," similar to the older burn terminology<sup>(1, 4, 9, 13-14)</sup>. A variety of signs are usually listed to determine the "degree" of frostbite and therefore to guide treatment. Although some differences in management will exist between more trivial and serious cases, it is apparent that, as in burns, even the experienced clinician will have great difficulty in accurately classifying the severity of injury early and that a more simple classification as to superficial or deep would probably be more suitable. Moreover, the involved extremity may exhibit several degrees of injury without regard to a regular pattern or progression. As will be discussed later, a further classification of great usefulness clinically is whether or not there is significant lowering of general body temperature.

Analogies have been drawn between frostbite and thermal burns<sup>(15)</sup>. Although both of these injuries result in blister formation, similar early microscopic changes in muscle tissue, and certain similarities in gross appearance, it is the firm opinion of the authors that this analogy is not an accurate one and is particularly undesirable because of misleading inferences often drawn therefrom.

The mechanism of injury in frostbite, although still not clearly understood, apparently depends on at least three distinct processes. The first and most obvious is the actual disruption of cellular and tissue structure due to ice crystal formation. Experimental work on laboratory animals by many investigators has demonstrated that the tissue injury is greater in conditions where cooling is slower, where the period of cold is prolonged, and particularly where the rate of rewarming is slow even for cases with roughly equivalent depth of frost penetration<sup>(15-18)</sup>. Meryman, working at The United States Naval Medical Research Institute, has done extensive pathological studies of such tissues and has demonstrated that the size of ice crystals formed in tissues is inversely proportional to the rate of freezing, and that the prolonged maintenance of a tissue in a partially frozen state where ice crystals are in equilibrium with the tissue fluid results in slow accretion to these crystals with a growth in their size and further tissue damage<sup>(19)</sup>. These observations are consistent with predictions from our knowledge of the characteristics of two-phase equilibrium mixtures in other situations and is also consistent with the experience of the meat packing industry that rapid freezing and adequately low temperature maintenance is necessary to proper preservation of food stuffs<sup>(12-20)</sup>. There appears to be good evidence from this and other work that the maintenance of a tissue at its freezing point, usually —2 to —5 degrees Centigrade, may be more detrimental than the maintenance of this tissue at a much colder temperature<sup>(12-17)</sup>.

Associated with the ice crystal formation is some type of direct cold injury to protoplasm which is probably in part at least due to extensive dehydration. This apparently is only partially reversible.

A third type of tissue injury is that due to impaired circulation. This is evidently a prominent cause of injury in "trench foot" and "immer-



sion foot" and is thought by some investigators to have a prominent role in further damage in the recovery phase of frostbite<sup>(21)</sup>. (This opinion has led to the widespread use of anticoagulants and vasodilators in the immediate post-freezing period.) It is most evident when tissues are in the temperature range of +5 degrees to +15 degrees Centigrade<sup>(15-17)</sup>.

In view of these experimental and theoretical considerations it appears that the time the involved tissue is frozen should be minimized and that once thawing begins there should be rapid rewarming to normal body temperature.

Once initial rewarming is accomplished, the physician is faced with the equally important clinical problem of preventing secondary changes such as fibrosis of intrinsic muscles, sludging of blood, thrombosis of vessels and irreparable changes in peripheral nerves. With this in mind we decided to use a potent tool heretofore not employed in this problem, ultra-high frequency sound. The major advantage of ultra sound over conventional diathermy is deep penetration of tissues.

Standard commercial ultrasonic equipment, then available in 1955-56, appeared to suit this purpose. Its utilization, effective in whirlpool or water bath, permitted penetration to all deep structures found in the extremities, including bone. We have felt that the condition of structures deep to skin is the determining factor in the eventual outcome of the frozen extremity. Assuming this to be so, it seemed logical for initial therapy, that treatment be directed to the injured, but still viable, deep structures, especially vessels and nerves, as well as bone and intrinsic musculature including tendon. Treatment then was directed, not to the changes so glaringly apparent in the envelope of skin, but to the more important contents. The preservation of these, the deep structures, provides the maximum results, since skin may readily be replaced by the indicated graft procedure at the proper later time.

Unfortunately, the rapidity of cooling of the injured part and the total duration of cold exposure are not usually within the control of the clinician in naturally occurring frostbite. In addition, most cases have already undergone thawing when seen first. (The early treatment of frostbite cases will be discussed in Part II of this paper.) However, in accordance with the above principles, the following program of treatment was planned and

applied whenever possible to the cases which are the subject of this paper.

### III. METHODS

When first seen the patient was evaluated for any deficiency of general body heat and efforts were directed at first instance to restoring this by the general application of heat externally and internally by ingestion of warm liquids. Parts still frozen or cold were then brought to body temperature by immersing in a warm water bath at temperatures from 42 to 48 degrees Centigrade (110 to 118 degrees F.). A whirlpool bath was usually used which provided more rapid heat transfer than a simple water bath. This was followed with very careful cleansing of the part with thorough but gentle scrubbing with a germicidal solution, benign to the tissues. In most cases this consisted of a hexachlorophene-containing detergent (pHisoHex<sup>R</sup>). Scrupulous care was taken to avoid trauma to the tissues and to avoid puncture of any blebs present. Following the achievement of as nearly an aseptic state as possible, the involved part was placed at rest on a sterile sheet and covered with a cradle over which a second sterile sheet was arranged to prevent contamination and unnecessary contact. No dressings of any kind were used except for small pledgets of sterile cotton inserted between the distal phalanges to avoid maceration.

Physiotherapy was instituted immediately when possible with whirlpool baths, usually combined with ultrasound therapy. Baths were given for twenty minutes once or twice daily for one to two weeks under as nearly sterile conditions as could be achieved. Active motion of the affected part was immediately encouraged. Passive manipulation was delayed until the acute stage had subsided and until danger of infection had diminished. Antibiotics were utilized in the same amounts and for the same rationale as are used with open fractures. Ultrasonic treatment was used in dosages of 1-1½ watts per square centimeter in a water medium, the sound head as close as possible without contacting the extremity. The application of this high frequency sound was prescribed for five minutes once or twice daily within the bath. In general, the method was directed towards the restoration of normal circulation, to the prevention of infection and ascending gangrenous change, and to the preservation and early rehabilitation of muscle and joint function.

(to be continued)

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# CHANGING FOOD HABITS AMONG ALASKA NATIVES

**RUTH COFFIN, M.D.**

*USPHS Alaska Native Hospital  
ANCHORAGE*

A recent episode of botulism among a group of Eskimos along the Bering Sea, a result of eating spoiled muktuk, occasioned a discussion of native diet and food preservation customs, and prompted this modest attempt to present just a few of the customs as they were formerly widely practiced, and as they are still practiced in some of the more remote villages.

Contact with the white culture has changed the native dietary pattern, as it has all aspects of their lives, to a melange of stone age and space age. Throughout all of Alaska the natives eat a diet dictated by their economic status. If they have a job which pays enough to buy it, they eat a diet exactly like their white brothers, but weighted toward starches and sweets and with fewer vegetables and fresh produce. For these people, food preservation is done for them by the canneries and factories. Where cash is shorter the diet consists mainly of the products of hunting and fishing, supplemented with flour, sugar, tea, coffee, and canned fruit and canned milk, as income allows.

There is a remarkable range of techniques among the Alaskan natives for storage of foods, consisting of drying, freezing, storing in seal pokes, either frozen or unfrozen, in animal stomachs, in stone, wood, woven, or pottery vessels, in pits in the ground, on racks, in wooden caches, and in ice caves.

Along the Bering and Arctic Seas some people depend almost entirely on the sea for their food. The behavior of the sea ice is the deciding factor as to whether a village obtains an adequate supply of sea animals.

The foods obtained from the sea consist of whale, seal, oogruk, sea lion, crab, clams, fish and seaweed. Other native foods are salmon, herring, tom cod, trout, white fish, ling cod, rein-



*Dr. Coffin*

deer, caribou, moose, bear, squirrel, rabbit, beaver, ptarmigan, ducks, geese, grouse, wild willow greens, sour dock, vetch roots (mashu), cloudberry, cranberries, blueberries, moss berries, bear berries, wild celery, wild rhubarb, and birds' eggs.

At Barrow where the summer temperatures just get up a little above freezing, spoilage is less of a problem than farther south. The old abandoned underground sod houses of Barrow, now used for ice houses, are below freezing all summer, and hence are excellent cold storage units.

Seal, oogruk, reindeer and whale make up the major sources of meat in Barrow. Caribou is eaten fresh, stored in ice houses, or dried on racks on the roofs to keep it away from the dogs. Seal and oogruk are skinned, the blubber and skin being removed in one layer. The meat is eaten fresh-cooked, or is air-dried and eaten raw, or is frozen and then cooked. The seal blubber is then trimmed off the skin and placed in a barrel in the

house in a warm place where it melts and collects as a thick liquid the consistency of salad oil. The oil is drained off and stored in sealskin pokes, and as the seal meat is cooked and eaten, it is sometimes dipped into the seal oil much as we dip foods in sauces.

The older method of rendering seal oil was to remove a sealskin from nose to tail without cutting it longitudinally and then to turn it hair-side in with the fur still on. The openings were all sewed shut except the top, and the seal fat was placed in this to render, at room temperature.

Whale is flensed and the pieces of mukhuk are hung up to air dry for one or two days and then the chunks of muktuk are stored in seal oil in barrels or in sealskin pokes. An older method was to take a whale stomach, clean it, turn it inside out and wash it and drain it. It was then inflated with air. The muktuk was cut up and boiled until tender, and packed into the stomach. The fat skimmed off during the cooking was then added and the top closed. This was stored in ice caves. Muktuk is also eaten raw or raw-frozen.

St. Lawrence and King Islands depend chiefly on the walrus for their meat supply. Walrus is eaten fresh-cooked. It is also air-dried or placed in pits dug down into the permafrost where it stays frozen until ready to cook.

The early Aleuts used much dried fish and a much greater proportion of shellfish in their diet. One delicacy still enjoyed at Atka when the tides are right is sea urchin. These are cut open and the egg-bearing portion is removed, washed, and eaten raw with great relish. I watched several children running up and down the beach collecting dozens of them and eating them as fast as they could crack the shells. They came away from the orgy with purple stained hands and faces, quite disgusted with my refusal to join them.

Fish are handled in a variety of ways. Trout, cod, ling cod, and grayling are eaten fresh or frozen. Salmon are eaten fresh in season. The bulk of the fish are sun-dried for winter use. The fish are cleaned, cut into strips and hung over racks for about three weeks. The dried fish are then put up in bundles of about 100 pounds (about 50 dried fish) and stored in caches, or in the unheated entryways to the houses.

Sometimes they are dried for three weeks, with special care being taken to cut away all

bones. Then as many as possible (up to 150) are put into a seal poke and about five gallons of seal oil is poured into the poke. The poke is then turned every one to two weeks so the oil mixes through the fish. Nowadays barrels are used more than the seal poke.

Now many fish are smoked. The fish are first cut into strips, then soaked in salt water overnight, hung in the air for two days, and then smoked slowly for two weeks.

Some silver salmon bellies are put in barrels and covered with brine for storage and are then soaked and boiled before being eaten. Another method of salting is to clean, cut into strips, wash and pack into barrels in alternate layers with salt, covering the top with a layer of salt, and then sealing the barrel. To eat it, it must then be soaked for 2 or 3 days in cold water, changing the water twice a day. It is then eaten raw or boiled. The barrel must be stored in a cool place.

An old-style delicacy is rotten fish heads. These are prepared by placing the fish heads and entrails in a barrel and storing in a cold place such as a deep pit, or submerged in cold running water. After four or five days the barrel is opened, and the fish heads picked out, washed thoroughly and then either eaten raw or boiled.

Grayling, salmon and herring eggs are eaten fresh or after storage in pits dug where they will not be exposed to direct sunlight. These are usually stored during the salmon run, and then in the spring when food for the dogs runs scarce, they are dug up. Formerly they were eaten by the Eskimos, but now they are mostly used for dog food.

In the old days, for dances and ceremonials, fish were especially prepared. Half-dried salmon was smeared with salmon eggs and then put in a seal poke.

Dried fish are eaten as they are, or they are dipped in seal oil. Instead of seal oil the Tlingits used fish oil prepared by cooking salmon bellies in a large wooden vat. The vat was actually a large dugout canoe which was placed on the ground. Then it was filled with fresh water and pieces of fish were dropped in the water at each end. In the center were placed stones that were heated in the fire until red hot. This caused the water to heat enough to cook the fish slowly, and render the oil. The oil was then skimmed off and



placed in large stone or wooden containers. This was used to season food, much as the Eskimos used seal oil.

Ducks, geese, grouse, ptarmigan, and spruce hens are eaten fresh in season, and frozen for later use. A few families on the West Coast put fowl up in brine.

Birds' eggs were once used more than they are now. They were eaten fresh, or preserved by hard boiling them and storing them in seal oil in a poke with the shells intact. These eggs were not always too fresh when gathered.

Ground squirrels, beaver, muskrat, bear, moose, reindeer, and caribou are eaten fresh, or are frozen. It is the custom for the Eskimos at Barrow and along the Arctic coast to crack the caribou bones immediately after a kill and suck the marrow. This is considered quite a delicacy.

Eskimo ice cream is made differently in different places. One recipe calls for melted tallow to be mixed with fish grease, and cooked crumbled white fish which has been squeezed dry. This is beaten until it is fluffy and then sugar and wild berries are added. Another recipe consists of seal oil whipped with finely shopped caribou fat until fluffy. Then shredded dried caribou or berries are added. A variant of this recipe calls for a mixture of shredded wild greens and berries to be added to the fat.

Berries are picked and placed in covered barrels without preservatives of any sort along the Northern Coast. In some areas the barrels are left standing at the berry patch until enough snow has fallen to enable them to be hauled home by dog sled. The berries are simply sorted, washed, and dumped into the barrels. As money allows, more and more natives layer the berries with sugar. The barrels are sometimes sealed with a layer of wax, like home-canned jelly. The berries are used fresh, frozen, or cooked. These provide a source of Vitamin C.

Willow leaves and buds, collected in the spring, are used raw and are stored by mixing with enough seal oil to give them a thin film of

oil and then placing them in kegs and storing in a cool place.

Greens, collected in the summer, consist of sorrel, wild dock, wild celery, and wild rhubarb. These are prepared in different ways. One method is to wash and chop them and cook them to a mush which is cooled and stored in a keg in a cool place. These undergo some sort of fermentation and become quite odoriferous. On St. Lawrence Island the greens are merely collected, washed, and packed tightly in kegs. They are said to come out smelling something like sauerkraut, and are eaten after undergoing partial fermentation.

A dish no longer used was ferns collected in late fall after they were frozen. They were peeled, chopped and mixed with salmon eggs into a mush and stored in kegs.

Another dish is made from wild rhubarb which is mixed with a small amount of reindeer moss and moss berries and allowed to ferment or sour a little. These greens all provide a good source of Vitamin A and some C.

Seaweed is dried and then chewed.

It wasn't my intention to editorialize, but I think that it is readily apparent that most of these practices offer the opportunity for spoilage, and food poisoning. Fortunately, or unfortunately according to the dentists, the younger generations are abandoning most of these practices gradually, and are acquiring freezers and pressure cookers, and the less wholesome diet of the white man.

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# MEDICAL PRACTICE IN A SMALL COMMUNITY

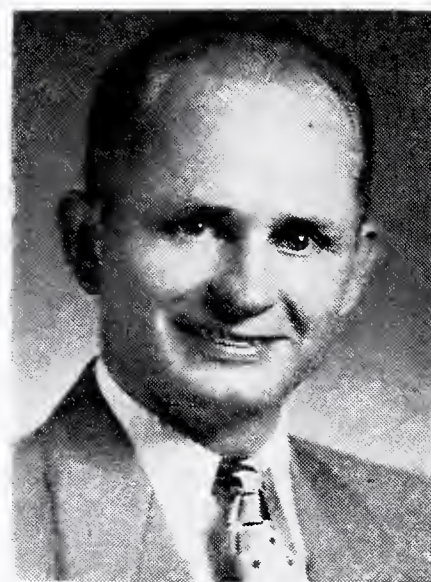
*PAUL G. ISAAK, M.D.*

SEWARD

Has anyone ever asked you why you chose to practice in the community in which you now live? There are many aspects of the question that are usually considered before deciding on a location. The need of your services in the particular community chosen may or may not have played a major role in your decision. I am sure you could always find another location where your talents would be in greater demand. It is necessary to be somewhat realistic regarding the probable economic success. This depends to some degree upon the needs of the people. But there is little doubt that quite frequently there are other factors that actually decide the issue. Not the least of these factors may be your spouse.

There are three main prerequisites in deciding on a small town practice. If one is married, the first prerequisite is that the location please the wife. More than one physician has had to change his ultimate location after being fairly well situated just because he may not have considered this important factor. The second prerequisite is that one engage in the general practice of medicine. There are very few small towns (under 5,000 population) that can support a full-time specialist. The third prerequisite is that there must be a need for a physician's services. These prerequisites are based on the assumption that it would not be practical to commute.

In my opinion, there are some definite advantages to a small town practice. Although the advantages may be outnumbered by the disadvantages, they are not outweighed by them. There is a serenity (this does not always apply here in Seward) in a small town that you do not find in the city. For this one reason many residents of a city move out into quieter surroundings and suburbs. The latter then, frequently necessitates driving long distances through heavy



*Dr. Isaak*

traffic to the office or hospital. Here in Seward a car would not even be essential. I enjoy walking (and I have to stay in shape for some of those strenuous hunting trips) and live only a few blocks from the office, hospital, or down town. Even in case of house calls it would often be advantageous to say, "I'm sorry but I am without transportation." Having an old flivver, I can occasionally say this in all honesty. At any rate, I have had my fill of racing city traffic with its trams and jams.

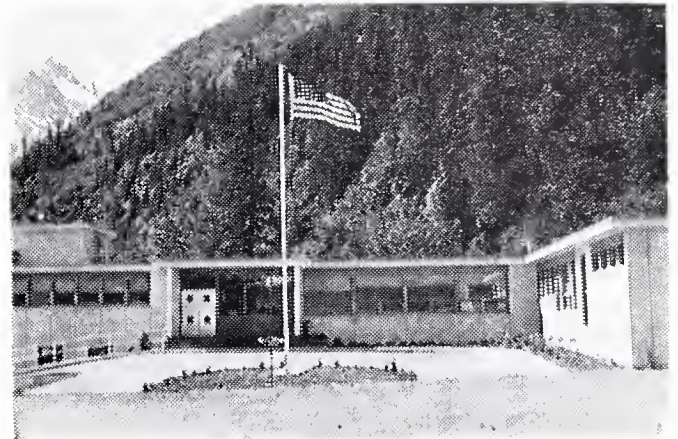
There is, I think, in a small town, better opportunity to see how environmental factors influence the patient. In a few years, a practitioner not only knows the patients, members of the family, and its ancestry, but also knows something about the family's habits. This is frequently important in establishing the basis of a patient's illness. In fact, it may greatly reduce the number of visits that would otherwise be required to do this.



After the cause of the illness is established, knowledge of the family circumstances again enables the physician to render the best treatment and advice in a minimum of time. I recall my experience with a general practitioner in a small midwestern town. He saw from fifty to a hundred patients a day, six days a week. At the time I maintained that a doctor just couldn't see fifty or more patients a day and provide them with good care. What I didn't realize at that time was how having lived in the community for over thirty years helped him in evaluating the problems he faced. He had treated many of his patients since their birth and hence was in a position to tell instantly whether the patient required much study or only a little reassurance. No doubt he missed some serious diseases in their early stages because he did not perform many complete physical examinations. However, I doubt that his percentage of error exceeded that of the average physician.

The variety of medical cases that the small town practitioner sees and has occasion to treat makes it imperative that he be versed in many special fields of medicine. It calls for frequent reviews of medical texts and journals. The latter very often presents information to him that he either forgot or never knew existed. The diversity of medical cases confronted by the local doctor makes for interesting experiences. It provides a constant stimulus to keep abreast of the large volume of rapidly changing and increasing medical knowledge. Often as a matter of necessity, he is called on to treat cases that the practitioner in the city would (and could) immediately refer. There have been many occasions when I would rather have referred the patient to someone more qualified but circumstances prevented it. For example, one of the three cases of fatal meningococemia I have seen happened to be my patient not long ago. He had been a previously healthy young boy who died within six hours after admission to the hospital, despite very intensive therapy.

After living in a small community for a few years, one becomes an integral part of it. This provides a feeling of contentment or satisfaction that I have not experienced in the city. For instance, I enjoy particularly being able to address the shopkeepers and their customers by name and to have a brief visit while making a purchase or inquiry. This is an aspect of informality that is typical of small town life. Of course there is the aspect of being a frequent subject of gossip



*Seward General Hospital*

which is undesirable but also a typical small town trait. I frequently hear people say that there just isn't anything to do in a small town. I have never been confronted with this problem. I would have to live several hundred years to be able to do all the things I enjoy.

There are the many advantages of living in the city or near a medical center—consultation is readily available, various medical programs and postgraduate courses are available, varieties of sports, movies, plays, operas and concerts, are some of the many fine things that we in the small community miss. Whether you have chosen one or the other has no doubt been influenced, among other things, by your past experience. However, I would venture a guess that the majority of you, if asked about your choice of location, might say, "I did it and I'm glad."

# MULTIPLE CALCULI AS A LATE COMPLICATION OF URINARY TRACT TUBERCULOSIS

*HENRY G. STORRS, M.D.*

*FAIRBANKS*

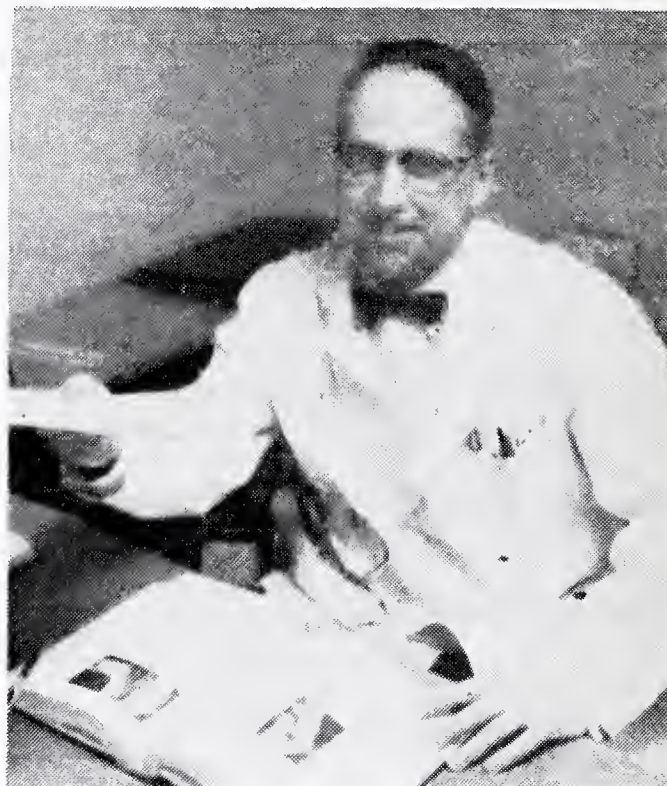
Urinary tract calculi are seen under a number of conditions (1). They are found in metabolic disorders such as hyperparathyroidism with excessive calcium excretion; they may be found in conditions producing stasis such as congenital anomalies, including accessory vessels compressing a ureter and producing hydronephrosis, or stasis from long periods with the patient supine such as forced bed rest with a fractured extremity in traction. There are also occasional isolated calculi passed painfully through the ureter with no obvious renal pathology. The etiology of these is thought frequently to be a small focus of infection or irritation on one of the renal papillae. Large bladder calculi are frequently thought to follow the passage of ureteral calculi into the bladder which do not pass on and gradually enlarge.

Those of us practicing in Alaska are all familiar with tuberculosis. There has been an unusually high incidence of pulmonary tuberculosis and cervical adenitis due to *Mycobacterium tuberculosis* among the Eskimos and Indians of this 49th state, apparently due to lack of prior immunity. We have also seen the further manifestations of tuberculosis as it affects other areas of the body. (2)

I would like to present to you a case whose tuberculous infection did not occur in Alaska and whose eventual calculus disease was quite striking and somewhat unusual.

## CASE REPORT

J. S., age 52, first contracted tuberculosis in 1929, thirty years ago in Chicago. (3) At that time, he had what he thought to be trauma to the scrotum with subsequent edema. He had a bilateral epididymectomy and, through a perineal approach, a prostatectomy and seminal vesiculectomy. The



*Dr. Storrs*

pathological examination revealed bilateral tuberculous epididymitis. As you are all well aware, at that time the anti-tuberculous drugs streptomycin, para-amino-salicylic acid, and isoniazid were not available. Yet this man recovered from his surgery and illness and felt that he was in good health for many years. Pulmonary tuberculosis was not discovered and sanatorial care was not prescribed at that time. This patient came to Alaska with such residuals of tuberculosis as he may have had.

In 1952 this patient was treated by me for a fracture of the left ankle. It seemed to be a straightforward orthopedic problem until the day of reduction and application of the cast as an out-patient when he developed severe pain in the



leg. He was immediately hospitalized and the cast removed. The thought of muscle ischemia or possible thrombophlebitis was paramount in the differential diagnosis. He was placed on bed rest for a week with the leg elevated. However, neither localized ischemia of the muscle nor vascular thrombosis was noticed. His leg was again placed in a cast, and he made an uneventful convalescence. I mention this now as it may bear on the future diagnosis. (6) It is noteworthy that no urinary symptoms developed at this time despite the strict bed rest.

My next contact with the patient was about a year later when he came in for a routine pre-employment physical examination, and my note read "well-muscled, white male."

When the patient presented himself next on October 24, 1958, he gave a six-month history of illness. For the first three months there was generalized malaise, weight loss, and backache, more on the right side. For the last three months he had had urinary frequency, urgency and terrific pain following micturition. This pain was of such severity and produced such tenesmus that he had prolapsed his rectal mucosa from the strain and had had a hemorrhoidectomy to correct this prolapse ten weeks prior to seeing me. He had gone into shock in the immediate post-operative period. He was wearing an improvised

urinal and complained not only of the severe terminal dysuria but also of severe backache. He was taking a proprietary compound (Cordex) containing 0.5 mg. of prednisolone (9,10). There was obvious deformity of the spine, and a 2 cm. dark, pigmented nevus over the left temple. He was cachectic and uremic.

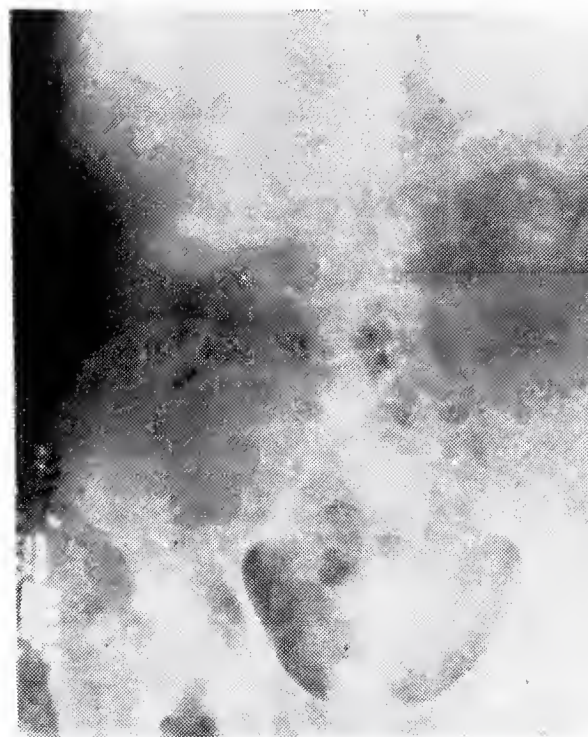


Figure 2. Intravenous pyelogram



Figure 1. Scout film

The first figure, the scout film of the abdomen, demonstrates a large golf-ball-sized urinary bladder calculus, a small staghorn calculus in the area of the right kidney and some small calcifications presumably in the cortex of the lower pole of the right kidney. The second figure shows the excretory pyelogram with normal function and an essentially normal pelvis on the left. There is absolutely no visualization of the right kidney. The urinalysis demonstrated specific gravity 1.030, 2-plus albumin, no sugar, 25-30 white blood cells, 4-6 red blood cells, 5 granular and 2 hyaline casts per high power field and many calcium oxalate crystals. The blood count revealed 10.8 gm.% hemoglobin, 4,360,000 red blood cells, 13,500 white blood cells, 58% neutrophils, 1% stabs, 39% lymphocytes, and 2% monocytes.

Because of the man's toxic condition and his severe pain the bladder calculus was removed through a suprapubic incision on November 11, 1958, and specific culture and sensitivity tests



were obtained on the infected bladder urine. This operation relieved the dysuria and restored urinary function to normal, but despite specific antibiotic therapy as indicated by culture, the patient continued to lose weight of about one half pound daily while in the hospital. The radiologist was firm in his interpretation of the vertebral lesion as an old fracture and not metastatic tumor from either the nevus on his left



Figure 3. Retrograde pyelogram

temple or from a possible hypernephroma of the right kidney. The third figure shows the retrograde pyelogram revealing a large hydronephrotic right kidney. This was removed on November 26, 1958 through a routine lumbar nephrectomy incision, (4) which procedure the patient withstood well. His temperature became normal immediately postoperatively, and he did well until the twelfth postoperative day.

Twelve days postoperatively the patient was returning from a short walk down the hall when he suddenly went into shock and remained in a precarious condition for two days. The differential diagnosis included massive pulmonary embolus and myocardial infarction. The chest x-ray taken three days later showed perfectly clear lung fields, and an electrocardiogram taken one day later was interpreted as normal. The

diagnosis was made of adrenocortical insufficiency.(10) Credit should be given to Dr. William Danko for the diagnosis and management of the metabolic deficiency. The patient was placed on hydrocortisone and made a gradual recovery.

We may regress for a few moments to review several factors which led to this diagnosis. First, as we all know, tuberculosis frequently produces Addison's disease. (5) This patient had tuberculosis, and we know it was affecting the kidney. The adrenal glands may be assumed to have tuberculous involvement. There was undoubtedly further trauma to the right adrenal gland during the nephrectomy. Secondly, leg pains may occur with moderate adrenal insufficiency. You will remember that in 1952 he had pain in the left calf. Following his suprapubic cystotomy he developed pain in the left leg and was treated for incipient thrombophlebitis. However, the signs were vague and some of the time they were bilateral. Thirdly, the patient responded to replacement therapy. On one occasion after the patient left the hospital, he went for about three days without any prednisolone and became extremely weak. (7,8) Fourthly, he had a moderate pigmentation of the skin. Finally, operative stimulation of the adrenal cortex gradually decreases in the immediate postoperative period. (9)

Addison describes his disease as "The leading and characteristic features of the morbid state to which I would direct attention are anemia, a general languor and debility, a remarkable feebleness of the heart's action, irritability of the stomach and a peculiar change of color of the skin occurring in connection with the diseased condition of the suprarenal capsule." (14)

This patient, although many of the symptoms were marked by concurrent urinary tract disease, had pigmentation of the skin, weakness, debility and irritability of the stomach. Replacement therapy corrected the symptomatology. The presence of systemic tuberculosis points toward tuberculosis as the etiology of his Addison's disease.(14) If there was no tuberculous involvement of the left adrenal gland, it should have been possible to stop therapy after recovery from the urinary tract disease. This was not possible, again confirming the diagnosis of Addison's disease.(10)

The diagnosis of tuberculosis was not made until after the surgery, when the urinary bladder



culture taken at the time of the cystoscopy showed growth of *Mycobacterium tuberculosis*, the report from St. Luke's Hospital in Chicago showed tuberculous epididymitis in 1929 (3), and the pathological diagnosis from Seattle on the right kidney showed tuberculosis in the thin cortex remaining in the nonfunctioning kidney. (11) These three reports were received the same day. Three independent diagnoses leave no question as to the etiology of this disease.

The patient at present is doing well, having gone from an initial weight of 131 pounds to 120 pounds before the nephrectomy to 158 pounds at present, and is doing light work now. (12, 13) He is maintained on the hydrocortisone analogs, prednisolone, triamcinolone or dexamethasone, in that order, as well as isoniazide and biweekly injection of dihydrostreptomycin. His repeat bladder culture is free of tubercle bacilli. His blood urea nitrogen is within normal limits. The excretory pyelogram shows no anatomical changes from that taken at first.

### SUMMARY

In summary an interesting and unusual case of the late sequelae of urinary tract tuberculosis with calculus of the right kidney and large urinary vesicle calculus treated by removal of the vesicle calculus, right nephrectomy and adrenocortical replacement therapy for Addison's disease has been presented.

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# *Woman's Auxiliary News*

A news column compiled by

**Mrs. Vernon Cates**

## **MEMBERSHIP PLEDGE**

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals."

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## **PRESIDENT'S MESSAGE**

An auxiliary year is nearing completion for the Woman's Auxiliary to the Alaska Medical Association. The most outstanding sign of progress has been a growing concept of the total auxiliary program. While the organization has not been able to participate in many phases of the program, it has made a sincere effort to take part in local, state, and national health and civic programs.

Altogether, many hundreds of hours have been given to welfare, hospital, nurses aide, polio, gray lady, tuberculosis, heart, girl scout, cub scout and other organizations, thereby "fulfilling individual responsibility for better community health."

On the state level, auxiliary chairmen have cooperated with other health agencies in studying the needs of the aging; with the University of Alaska in awarding a health scholarship; the civil defense chairman, with the civil defense director in presenting information and a film on home preparedness; and the safety chairman working with the homemakers organization.

On the national level, the entire auxiliary has become conscious of the needs of the American Medical Education Foundation, and has placed it as a top project in fund raising activities. It

has realized the need for a stand against the Forand Bill, and has distributed information on it, and many letters have been written to our congressmen regarding this bill.

This year, ALASKA MEDICINE the state medical journal, has cooperated with us in compiling auxiliary news. This year, also, the Alaska Medical Auxiliary was represented at the conference of presidents, in Chicago, October 5-7. The Alaska Medical Auxiliary was honored by the Oklahoma auxiliary at its annual convention. This honor inspired us to build a stronger organization, in order to take our place with our sister auxiliaries. It has been a rewarding year, drawing the members closer in responsibility.

I wish to thank the Woman's Auxiliary to the Alaska Medical Association for the privilege of having served as its president.

Mrs. Mary Lee Phillips

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## **FROM OTHER STATES . . .**

Xvxn though my typxwritxr is an old modxl, it works quitx wxll xxcpt for onx of thx kxys. It is trux that xvxn with forty-onx kxys functioning, just onx kxy not working makxs this diffxr-xncx. Somxtimxs it sxxms that our auxiliary may bx somxwhat likx my typxwritxr — not all thx mxmbxrs arx participating.

The next time you think you are only one person and that your efforts are not needed, be sure to remember my typewriter and remind yourself that you are a KEY person and are needed very much.

From The Illinois Auxiliary News



## CONVENTION PROGRAM

of the  
**WOMAN'S AUXILIARY**  
to the  
**Alaska State Medical Association**  
**February 18th, 19th, and 20th 1960**  
**ANCHORAGE, ALASKA**

### Thursday, February 18

- 10:00 a.m. — Registration: Westward Hotel  
12 Noon Mrs. Charles St. John (Ginny) Chairman  
1:00 p.m.—Buffet Luncheon - Idle Hour Country Club.

#### R. S. V. P.

Mrs. J. H. Shelton (Jean) Chairman: 1534 Hidden Lane or Mrs. J. Ray Langdon (Thelma) Chairman: 2303 Captain Cook Blvd.  
Business Meeting of Auxiliary to Alaska State Medical Association: Mrs. Francis Phillips presiding. Speaker to be announced.

### Friday, February 19

- 9:30 a.m. — Breakfast for newly-elected and retiring officers and standing committee chairmen: Chart Room - Westward Hotel Mrs. Francis Phillips (Mary Lee) Hostess.  
10:30 a.m. — Guest Speaker, Round Table Discussion of auxiliary problems: Chart Room (Open to all interested physicians' wives) .  
2:00 — Tea at the home of Mrs.. Asa Martin (Evelyn): 2805 Turnagain Blvd. with Mrs. Alfred Hamilton (Maureen), Mrs. William Ivy (Gerrie) and Mrs. Stan Edwards (Ann) as Co-Chairmen.

### Saturday, February 20

Available Activities:

- 10.00 a.m. — Fur Rendezvous Parade.  
10.00 a.m. — Ski Races - Arctic Ski Bowl or Alyeska. Tour of Anchorage and the Fur Rendezvous.  
1:00 p.m. — World Championship Sled Dog Races.  
3:00 p.m. — Eskimo Dances. Tour of A. N. S. Hospital.

Arrangements for tickets and transportation may be made at the time of registration or by contacting the greeting committee.

#### Committee Chairmen

Greeting —

Mrs. C. E. Chenoweth (Nina)  
Mrs. Jack Sedwick (Marion)

Programs —

Mrs. Winthrop Fish (Carol)  
Mrs. Rodman Wilson (Gwynneth)

## AUXILIARY NEWS

ANCHORAGE — The Anchorage Medical Auxiliary has had four busy winter meetings. A successful toy and jewelry party was held in November, and a demonstration of Christmas wrappings, to prepare for the annual Christmas Bazaar, followed the regular November meeting.

The Bazaar was held on December 12th. Foreign and fancy Christmas goodies and unusual hand-made articles were sold, with the proceeds to be donated to the local hospital fund.

A sum of twenty-five dollars was sent to the Anchorage student selected to attend the White House Conference on Children and Youth, to help defray expenses of the trip. One hundred and twenty-five dollars from the proceeds of the October Rummage Sale was sent to A. M. E. F.

Mr. Vincent Chellis, local director of Civil Defense, outlined the present program in this area at the regular January meeting. Plans were being formulated for the state convention to be held here in February.

SEWARD — Civil Defense matters are of great importance in this location. We are working with the authorities to stimulate awareness and interest in the preparation our citizens must make as prospective hosts (as it were) for the displaced numbers which could move into this area in the event of evacuation of Anchorage. Our very efficient and effective volunteer Ambulance Corps conducts regular classes in first aid. All of the physicians and or wives are involved in one way or another in this program.

### AN ALASKAN PHYSICIAN'S WIFE

"Nurse wanted in Alaska. Must be free to travel. Salary \$427 plus per diem." This ad in the American Journal of Nursing sounded like it was meant for the present Mrs. John B. (Grace) Fenger. That is how and why she arrived in Alaska, May, 1953.

Working for the Alaska Department of Health as BCG nurse, she traveled to the isolated villages and nurses' stations giving tuberculin tests, BCG vaccine, and teaching the itinerant nurse the procedure. While in this position most of the areas of Alaska were visited.

Since summer is not always the best time to find the natives in their villages, Grace was as-

signed to the mobile X-ray unit which was to work the Alaska Highway starting at Haines.

Come the end of August, 1954, she was informed that the BCG program was discontinued for the present and that she was to be placed on a marine health unit. The M. S. Hygiene was to work the Aleutians in the fall and winter. Little did she realize upon taking this position that she would marry the Medical Officer-in-Charge, Dr. John B. Fenger, and take a "honeymoon cruise" in the Pacific. Mrs. Fenger says, "The Aleutian storms were vicious, and everything written about them is true. Sometimes the ship would roll 45° either way and you would wonder if she would ever right herself."

They left the ship in June, 1955, to return to Denver, Colorado, where Dr. Fenger took a residency in general practice. In the meantime Grace took a position with the Denver Visiting Nurse Service.

Alaska was still in their blood and they began investigating the possibilities in Homer. Prospects looked so good that they arrived to open practice July 1, 1956, as Homer's first resident physician.

Now, four years later, the Fengers' boast two children, a cat, a dog and a home, and have definitely decided to stay and grow with the community.

(FEATURE EDITOR'S NOTE: *This is the first in a planned series of biographical sketches of our members. Suggestions for future sketches will be welcomed.*)

### COMMUNITY SERVICE

Each of us must find time to help our different groups in community service projects. We have a responsibility to our community to help in activities that will make the community a better place in which to live. The list is long and diversified enough to interest everyone; Health council, hospital auxiliary, seal sales, mental health committee, publicity on the Forand Bill, preparing a community health program for older citizens, interesting our school children in a medical career, and other items that pertain to each community individually. Service to the community comes from individual help through organization and group work.

Mrs. R. Holmes Johnson

### NEWTOK ELIGARUIT-NIAKSARUIT\*

Dr. and Mrs. Paul G. Isaak of Seward welcomed their fifth child and second son on Christmas morning.

Dr. and Mrs. George Sperry are parents of a son, Henry Robert, born on September 4th. Dr. Sperry is in charge of the Alaska Native Health Service in Juneau.

Paul Alexander Mead, birth date January 6th, 1960, has joined a brother and two sisters at the residence of Dr. and Mrs. Perry A. Mead of Anchorage.

There are now three children in the family of Dr. and Mrs. Royce Morgan of Anchorage since the arrival of Philip Harvey on November 26th.

Dr. and Mrs. William Mills of Anchorage are parents of a new daughter who arrived on February 5th to join a family of three girls and one boy.

\*Eskimo for "New Boys and Girls"

### ABOUT A. M. E. F. CARDS

Mrs. Arthur J. Schaible, State A. M. E. F. Chairman, does have the sympathy and appreciation cards available to all interested persons. You may contact her at 822 Northward Building, Fairbanks, Alaska.

### ALASKA RECIPES FROM OUR MEMBERS

#### Kodiak King Crab Newburg

3 cups of crabmeat (fresh or canned)  
½ cup butter  
2 tablespoons sherry  
2 tablespoons brandy  
2/3 cup of whipping cream  
3 egg yolks, slightly beaten  
Few grains nutmeg, salt and cayenne.

Melt butter, add crab, cook 3 minutes. Add sherry and brandy, cook 1 minute. Add cream and season with nutmeg, salt and cayenne. Add egg yolks and cook and stir gently until the sauce thickens slightly. May be served on toast triangles, serves six.

Submitted by Mrs. J. Bruce Keers



# *Muktuk Morsels*

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

## **GENERAL**

Several pieces of legislation of particular importance to physicians will be coming under consideration in the second annual meeting of the Alaska State Legislature. These tentatively include a new adoption law. Physicians interested in the context of this law should contact Dr. Peter Koeniger, Anchorage, who is chairman of a medical committee studying this proposed bill. It has also been suggested that the present Alaska law regarding licensing of Alaska physicians be changed so that Canadian citizens as well as United States citizens be eligible to practice. Dr. William Whitehead of Juneau is active with this latter legislation.

During the latter part of January and early February, Mr. Robert Atwood, editor of the Anchorage Times, attended a Washington, D. C., meeting on Indian health as the Alaskan representative. Delegates to this meeting, which takes place every few years, represent the various states with large Indian populations and consult with the U. S. Public Health Service and the Department of Health, Education, and Welfare about future plans for Indian health. It is of interest that some of the delegates from the other states are prominent Indian leaders. Prior to his departure for Washington, D. C., Mr. Atwood met with the Anchorage U. S. Public Health Service officials and with the local private physicians, who serve as consultants to the Anchorage Native Health Service Hospital, to obtain their recommendations.

## **LOCAL NEWS**

**JUNEAU:** The first 1960 meeting of the St. Ann's Hospital Medical Staff and the Juneau Medical Society took place in January. Retiring

officers of the organization were Dr. John Clements, president, and Dr. Henry Wilde, secretary. Officers elected for this year were Dr. J. W. Gibson, president, and Dr. W. M. Ward, secretary. Dr. C. C. Carter was elected as Chief of Surgery, and the following committee chairmen were appointed: Dr. W. M. Ward, Tissue Committee; Dr. H. Wilde, Pharmacy Committee; Dr. George Sperry, Records Committee; Drs. J. W. Gibson and W. M. Ward, Revision of By-Laws Committee.

The electroencephalograph machine has now been completely installed, and is ready for operation at the hospital. A new hospital pharmacopoeia was distributed among the staff men.

Dr. Homer F. Ray, Jr. arrived in Juneau in November, 1959 as psychiatrist with the Alaska Department of Health and Welfare Southeastern regional mental health clinic. This is the first time a full-time psychiatrist has been assigned to the Southeastern mental health clinic. Previously Dr. John B. K. Smith has combined these duties with those of his position as director of the state program.

Dr. Ray was born in Chester, Pennsylvania, and is a graduate of the University of Pennsylvania School of Medicine. He completed his internship at the Philadelphia General Hospital and took specialized training in neurology there also. He completed his specialized training in psychiatry at Norristown State Hospital in Pennsylvania and has been successively clinical director, assistant superintendent, and acting superintendent of Somerset State Hospital in the same state. He comes to Juneau from the latter position. Dr. Ray's wife, Florence, and four boys accompanied him to Alaska. Dr. Ray is seeing private patients at the Juneau Clinic once weekly.

The Southeastern regional mental health clinic team is centered in Juneau and also makes

visits to Ketchikan, Sitka, Petersburg, Wrangell, and other communities in southeastern Alaska.

**KETCHIKAN:** Dr. John Stewart has left Ketchikan to return to California.

**SKAGWAY:** Dr. William R. Coleman has returned to Skagway from practice in Fairbanks.

**WRANGELL:** This community has a physician after a number of months without one. He is Dr. Jack W. Clark, formerly of Fairbanks and Ketchikan. He was born in Indiana in 1921 and graduated from the Indiana University School of Medicine in 1945.

**FAIRBANKS:** Elections for St. Joseph's Hospital staff officials were held in January, 1960. President is Dr. Lawrence Dunlap; vice president, Dr. Donald Tatum; and secretary-treasurer, Dr. Joseph Ribar. New Fairbanks Medical Association officials are: Dr. Joseph Riber, president; Dr. James Lundquist, vice president; and Dr. Donald Tatum, secretary; and Dr. Lawrence Dunlap, treasurer.

Dr. Carl Boswell and Dr. Donald Tatum have been appointed to the Mental Health Medical Advisory Board to assist in screening patients for psychiatric care and institutionalization.

The Fairbanks Clinic has been joined by Dr. Charles W. Bugh, born in Elkhart, Indiana in 1931 and a 1957 graduate of the Indiana University School of Medicine. He will be doing general practice with an emphasis on obstetrics and pediatrics. Dr. Samuel Patrick McCarron, who briefly practiced in Fairbanks, has returned to the South "48".

Mayor Paul B. Haggland, M. D. has been appointed to the Civilian Advisory Committee to the U. S. Army, Alaska organized recently as an advisory group in the field of Army-Civilian community relations.

Mrs. Grace Berg Schaible was one of the nine successful candidates of the group of eighteen persons who took the recent Alaska Bar examination.

Medical social activities included a recent dinner party for all Fairbanks physicians. This is an annual event at which they donate funds for research to which ever research group or medical school they desire. The doctors have al-

so organized a bowling team as part of the Professional and Business Men's League.

This area is most interested in obtaining an ophthalmologist and/or an otolaryngologist. Dr. Hugh B. Fate will return to Fairbanks from Shasta, California to spend the summer months but will not practice.

**KODIAK:** During January Dr. Bruce Kerrs attended the annual meeting of the Westward Council of the Alaska Heart Association in Anchorage. He combined this meeting with skiing and a medical evaluation.

**SEWARD:** During the late spring Dr. Paul Isaak plans to transfer his practice from Seward to Soldatna below Kenai on the Kenai Peninsula. It is tentatively planned that a community health center, including a one or two bed hospital, will be built for his use.

Because of his interest in improving the value of the school physical examinations, Dr. Joseph B. Deisher has been appointed to the Alaska American Academy of Pediatrics School Health Committee.

**CHUGIAK:** During January, Dr. Marshall Simpson transferred his practice full-time to Chugiak. He has joined the staff at Providence Hospital in Anchorage and continues his affiliation with the Palmer Valley Hospital. He is the first physician to locate in this rapidly expanding community located about midway between Palmer and Anchorage.

**PALMER:** During January Dr. Clarence Bailey visited Outside.

**ANCHORAGE:** Dr. Stanley Edwards, of the U. S. Public Health Service, was killed February 5, when his chartered plane crashed into a mountain side while returning from a field medical trip, which included villages in the Aleutian chain. This was the first field trip of its kind instituted from the Anchorage Native Health Service Hospital, which serves this remote area of western Alaska. A massive air group composed of 30 planes a day representing Civilian Air Patrol, Air National Guard, Fish and Wildlife Service, and at least 20 private planes, aided by several Coast Guard ships, joined in the search of the chartered Inlet Airways twin-engine am-



phibian Grumman Widgeon. The wreckage was found on February 13th.

Since the recent disbandment of the Air Force's Air, Sea Rescue unit, it is the obligation of the private pilots in this area to assume the responsibility for the intensive air searches needed to locate lost planes. A number of physician members of the Anchorage Airmen's Association assisted in the search and included Dr. Joseph Shelton; Dr. Tom West, surgeon at the Anchorage Public Health Service Hospital; Dr. Rodman Wilson; Dr. Charles St. John; and Dr. Robert Whaley.

New Anchorage Medical Association officers are: President, Dr. Michael Beirne; Vice-President, Dr. Rodman Wilson; and re-elected Secretary-Treasurer, Dr. Winthrop Fish. 1960 Providence Hospital Staff officers are: President, Dr. Howard Romig; Vice-President, Dr. Nancy Sydnam; and Secretary-Treasurer, Dr. Rudy Leong. Executive committee members are: Dr. Rodman Wilson; Dr. James Fitzpatrick; and Dr. Duane Drake.

Dr. Rodman Wilson was recently elected a Fellow of the American College of Physicians and will attend their annual meeting in San Francisco in April. The 13th annual meeting of the Alaska Crippled Children's Association was held in Fairbanks in January. One of the 22 Alas-

ka delegates to the 1960 White House Conference on Children and Youth will be Dr. Helen Whaley as representative of the Alaska Branch of the American Academy of Pediatrics. Dr. Robert Wilkins is one of the Anchorage members of the Civilian Advisory Committee to the U. S. Army, Alaska.

The yearly January general practice review postgraduate course sponsored by the University of Colorado in Denver was attended by Dr. Charles St. John. He reports that this is an intensive 7 day refresher course in all aspects of medicine and gives credit for the American Academy of General Practice. The midwinter assembly of the Los Angeles Obstetrics and Gynecology Society meeting in mid-February will be attended by Dr. Howard Romig. He will also attend several Big Game hunting meetings enroute back to Alaska in his capacity as a registered guide.

### MEETING NOTICE

Alaska women physicians are invited to attend the Pan American Medical Women's Alliance Seventh Congress in San Juan, Puerto Rico, June 3 to 8, 1960. Information can be obtained from Hilla Sheriff, M.D., Division of Maternal Child Health, South Carolina State Board of Health, Columbia 1, South Carolina.



# *Letters to the Editors . . .*

To the editor:

## **"THE CAMEL IN ALASKA"**

In the areas where camels are in common use as beasts of burden, tents are in common use as residency for the human population. It is well known in these areas, I understand, that if a camel gets his nose in the tent, he will soon, by means of continuous pushing get his whole body inside of the tent and it will be necessary for the people to leave. The implication is that since it is preferable, from the people's point of view to keep the camel out of the tent, precautions should be taken to keep his nose out of the tent.

In 1950 the Alaska Native Service (ANS) was an offshoot of the Bureau of Indian Affairs. As such it maintained its own system of hospitals, to care for the native peoples, throughout Alaska, and staffed these hospitals with physicians employed by itself. There was no direct relationship with any other governmental medical agency, although certain physician-employees of the USPHS were loaned to the ANS on a temporary basis. At that time the hospitals of the ANS were largely small ones located in isolated communities and staffed by one physician and a few nurses. The chief exception to this was a large unit at Mt. Edgecumbe, Alaska — just across a narrow channel from Sitka — which was listed with the AMA as having 218 beds. In 1953 the ANS began building a second large medical center — 400 beds — in Anchorage, Alaska, completing construction in 1955. Through a series of political maneuverings in 1955 the entire medical establishment of the ANS was assumed by the USPHS and became the Alaska Native Health Service (ANHS). Up until the time of this change there had been some difficulty in staffing both the Mt. Edgecumbe and the Anchorage centers. Subsequently, with all the personnel resources of the USPHS to draw from, both these large centers were completely staffed and the problem then became one of maintaining a full patient load to prove that the expenditure of the funds for these two institutions had been warranted.

In 1950, there were varying estimates of the extent of tuberculous infection amongst the Alaska population, native and white, but it was agreed

that the problem was an overwhelming one requiring the large number of beds that the two large units plus the smaller units would provide. In addition, at that time the Seward Sanatorium, just outside Seward, Alaska, was handling approximately 150 cases of pulmonary tuberculosis, including both native and white patients. The Seward Sanatorium was being paid for this care by the ANS in the case of the native patients, and by the Veterans Administration, USPHS, and Alaska Department of Health for the care of the whites not able to cover the costs of their care from private sources. The largest single category, however, was ANS beneficiaries.

Soon after the change of the ANS health services to the ANHS, the number of native patients at the Seward Sanatorium began to decrease and it was known that considerable numbers of these Eskimos, Aleuts, and Indians were being sent thousands of miles from their homes to Indian Service hospitals (operated by the USPHS), and even to private owned sanatoria, in the northwestern United States while beds designated for the treatment of tuberculosis closer to these patients' homes and within the Alaskan economy were left empty. To make a long story short, despite numerous protests by Alaskans, this process continued to the result that, with the expanded use of outpatient medical treatment for tuberculosis, all natives were removed from the Seward Sanatorium and the small load of white tuberculous patients in the territory not eligible for care in VA and other government hospitals was not sufficient to keep the Seward Sanatorium open. With its closure in July 1958, there would have been no institution in the Territory of Alaska for the care of tuberculosis in non-native people, if it were not for the establishment in Seward, of the Wesleyan Hospital for Chronic Diseases by the Woman's Division of Christian Service of the Board of Missions of the Methodist Church. This 30 bed institution was provided by conversion of a modern Nurses Residence formerly used by Seward Sanatorium personnel.

The far-flung small hospitals in Alaska have also felt the effect of the absorption of their pat-



ients into the larger centers. This absorption has included not only the care of chronic conditions such as tuberculosis, orthopedic problems and cardiovascular diseases, but includes ANHS beneficiaries who formerly went to local hospitals in the area of their residence for care of elective surgical problems, obstetrical care, and the like. More recently, however, these patients are required to travel to Anchorage or Sitka to receive this type of care. It should be recalled at this point that Alaska is one-fifth the size of the United States. It is reported that many eligible for ANHS care are, if financially able to do so, purchasing Blue Cross or other private insurance to assure their care outside the socialized system. Is it pure coincidence that the 29 bed hospital at Fort Yukon closed its doors in 1957? The 15 bed hospital recently constructed at Valdez has also closed. One day, in 1957, the 15-bed hospital in Cordova had no patients. The St. Joseph's Hospital in Fairbanks threatens to close periodically. The Seward General Hospital (30 beds) is running at one-third to one-half capacity.

With the closure of the only institution for the care of the non-native tuberculosis patient in the Territory, it was rumored that attempts would be made to open one of the wards of the ANHS hospital in Anchorage to the non-natives. This has been forestalled by the opening of the Wesleyan Hospital for Chronic Diseases in Seward. Had the Wesleyan Hospital not opened its 20 beds for TB care, or if it should close it seems apparent that the rumor would become fact. Such a move could only have the effect of reducing still further the available patients for occupancy of these small hospitals scattered through the territory which care for the immediate needs of their local populations. In the face of rising prices and diminished utilization these small hospitals must close up, or raise their charges, in order to survive. If charges are raised, the various government agencies will naturally respond by noting that the cost of hospitalizing their beneficiaries in USPHS and VA beds is so much less than the rates of private local facilities that they must get more and more government hospital space for these beneficiaries. This will reduce the payload of the little hospital further and so the spiral may be expected to progress.

Does that look like a camel on the horizon?

Incidentally, the bite of the camel is extremely vicious and highly destructive.

In the "Handbook for Admitting Patients in USPHS Hospitals and Clinics" promulgated by the U. S. Department of HEW in November, 1957, it is interesting to note that in addition to members of the Army, Navy, Air Force, Coast Guard, Coast and Geodetic Survey, Marine Corps, Lighthouse Service and the like, whether on active duty or retired, certain other groups are eligible which might strike one as a little surprising. For instance, this includes long-shoremen and harbor workers. Teamsters are not mentioned. Of course, this group is eligible for "Examination only; no treatment **except in emergency**". But who is to say what is an emergency? These people are eligible on written request from the Deputy Commissioner of the Bureau of Employees Compensation, for medical examination only. However, "if this necessitates hospitalization for tests, this is authorized". How much of the camel's nose does this let under the tent?

Another instance: "For teaching purposes and professional development **patients not otherwise eligible may be admitted** (to USPHS hospitals) for observation and treatment in the following instances:

- "1. Unusual features of commonly encountered disease.
2. Infrequently seen disease entities.
3. **Medical or surgical conditions which, though not in themselves rare, are not commonly met among PHS beneficiaries.**
4. When it affords opportunities for the use, under carefully controlled conditions, of new and experimental treatment methods, or for inclusion in a current clinical research project.
5. Persons accidentally poisoned by insecticides and related compounds.
6. Malaria and other research."

Look again at number 3, Can you recall the number of patients admitted to the VA hospitals with non-service-connected disabilities in the late '40s in order to give the residents in the VA hospitals a better rounded training? Weren't there some who might have been as well treated in the private enterprise system of medical practice to which even the government planners in this country are giving lip service? How far is the camel's nose under the tent now?

The most interesting instance is the third one. Perhaps the private physicians of the country thought that the so-called Medicare program would return to their care the families of the members of the Armed Forces. Under Public Law 569, 84th Congress, the Joint Regulations of the Department of Defense and Department of HEW, and PHS General Circular No. 6 these dependents are eligible for care in "the USPHS hospitals, clinics and designated Indian Health Facilities in Alaska" under exactly the same conditions as they are eligible for private physician care. This is at present a permissive eligibility. How much trouble would the government planners — the piece-meal socializers — have in getting the wording changed to slowly add progressive pressure until it was in effect compulsory?

How many people live in Alaska? 210,000. How many are natives eligible for ANHS care? 34,000. How many are members of the Armed Forces and their dependents? 30,000. How many are employed in maintenance and operation of registered vessels and thus classified as seamen? I would estimate 10,000.

Consider the wife of a fishing boat operator who was employed on her husband's boat as cook. Since she delivered within 90 days of stopping work as a "merchant seaman" she was delivered at no charge to her by the medical officer in charge of the local USPHS office — at taxpayers' expense — outside the free enterprise system of medicine.

If through sheer force of manufactured necessity, the small hospitals are forced to close in the manner outlined, where then will the private practitioner take his patients? Can you think of a more subtle way to accomplish control of the medical profession in an area?

Will Alaska be the first state with a fully socialized hospital system?

Alaska is now a full-fledged State. If control of the medical profession can be obtained in one state, why not in another? Now, how far is the camel into the tent?

It has been said that there are three kinds of people in this world in terms of current events. One group never does know what is happening; the second, possibly more astute, is able to observe things as they happen; the third and smallest group and possibly the most astute of all

consists of those who make things happen. It will be interesting to see to which of these groups the medical profession in Alaska belongs.

Joseph B. Deisher, M.D., Seward

## KREBIOZEN

To the editor:

Recent issues of Alaska Medicine have published letters to the Editor on the subject of Krebiozen. Because of the local interest this subject has aroused, the following information is submitted.

In December, the Anchorage Medical Society appointed a committee to study this problem.

The committee on Krebiozen, appointed by Dr. Mills, was requested to give opinions regarding:

1. The specific resolution presented to it.
2. Whether there is any evidence of suppression of freedom in this controversy.
3. Whether any action should be taken by the Anchorage Medical Society.

The readers of Alaska Medicine, we think, might be interested in our conclusions. They are:

1. After extensive consideration by the committee to investigate Krebiozen it is the considered unanimous opinion of the committee appointed by Dr. Mills that the Anchorage Medical Society should take no action on the resolution presented to it for study by Dr. William Ivy, at the December meeting.

2. After reviewing all the material relevant to the Krebiozen controversy we can find no evidence that freedom has been suppressed.

3. After an objective and dispassionate consideration of all material the committee feels that appropriate avenues for the solution to the controversy have already been provided and that the proponents of Krebiozen have only to avail themselves of these opportunities. Therefore we feel no action of any sort is indicated by the Anchorage Medical Society.

The Committee:  
Louise Ormond, Chairman  
Robert Wilkins  
Perry A. Mead



## MOBILE CHEST X-RAY SURVEY

To the editor:

A mobile X-ray survey in the Anchorage area is being planned as a part of the annual Fur Rendezvous, February 16-22, as a cooperative venture of the Alaska Department of Health, the Anchorage Tuberculosis Association, and the City of Anchorage. In our publicity we will stress the importance of X-rays for those over 16 who have not had a chest X-ray in the past year.

Robert N. Philip, M.D., President,  
Anchorage Tuberculosis Association.

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## AMERICAN PHYSICIANS ART ASSOCIATION

To the editor:

Thank you for your very welcome letter—we are delighted to have Alaska in our midst.

Thus far our membership has consisted of individuals only, but your proposal to have ALASKA MEDICINE join as a sponsor member for all physicians in your State Medical Association is an excellent one. I am certain that our

Executive Committee will be glad to welcome your organization as a member and will no doubt want to extend this opportunity to all State Medical Societies. You may thus credit yourself with an excellent pioneering proposal.

May I call your attention to the fact that the 23rd Annual Exhibition will take place in Miami Beach, Florida, from June 13th to June 17th. Specific instructions concerning shipping and other details will be forthcoming in April.

Kurt F. Falkson, M. D., Secretary,  
American Physicians Art Association

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To the editor:

I wish to express my pleasure in welcoming the first state sponsorship in our Association from our 49th State. We certainly need all the help at a sponsorship level we can get and I feel that other States should join the growing list of sponsors to promote artistic interest among physicians.

Lewis M. Johnson, M.D., President,  
American Physicians Art Association



# Editorial Page . . .

## "VOLUME TWO, NUMBER ONE"

Alaska Medicine, having passed, not unscathed, from egg through larval stage, prepares for its next transition, - into the pupal period. From this state, this coming year, the Editorial staff trusts we will emerge into the adult stage of the cycle, viable, healthy and more long lived in this region, than the ordinary species of literary insect.

The Journal has progressed. This is largely a result of the combined efforts of the loyal advertisers, the long-suffering printers, the put-upon writers, and the effort of our harrassed Editor, Dr. William Maddock.

Not all of you have demonstrated agreement with our Editorial policy, methods, or the journal format. Most not in accord however, have expressed themselves in hallways, in isolated groups, or in transit. In one respect this is a healthy symptom for the publication, for we realize that you must be reading some part of it. However, it is less healthy in another regard, for your opinions are not rendered in Letter to the Editors form, - and your vital thoughts are as 'words writ upon the water', and the editorial space awaiting your voice goes unfilled, or even worse, is taken by those whose opinions in matters of interest or concern to you, are in opposition to your beliefs.

This journal is yours, you members of the Alaska State Medical Association. For optimum efficiency, the fuel for its fires has been found to be pencil, pen with ink, or typewriter ribbon, black or red - the latter color having greater combustion capacity.

Physician, don't simmer and burn, alone, and without statewide medical consultation, thereby destroying your equanimity and gastric mucosa. Emerge with Alaska Medicine from the pupal envelope. We know you are out there, but as yet we can't read you! Static in the usual Arctic and Subarctic atmosphere makes for poor voice transmission. Don't call. Write!

**William J. Mills Jr., M. D.**  
**Editor-in-Chief**

## "A QUESTION OF EQUALITY"

Much of the reason for the rapid growth, the strength and vigor of America has been derived through the great waves of immigrants coming to these shores in the last three centuries, contributing their conflicting drives, interests and purposes, and this is again evident in the population of Alaska over the last 70 years. Alaskans today are characterized, more than the citizens of most states, by industry, imagination and tolerance for conflicting philosophies and ideologies. Nowhere in the history of recent times has such a large immigrant wave been accepted into the resident population with such friendliness and tolerance.

There do exist, however, serious areas of discrimination which should be eliminated if we are to adhere to our stated basic beliefs of social equality and brotherly acceptance. We should like to put forward at this time our plea for efforts to make these "foreign" citizens the equals of the original inhabitants and give to them their proper rights. Many areas of discrimination still exist, such as hunting bag-limits, fishing rights, and availability of secondary boarding schools, but by far the most serious area of discrimination is in the furnishing of adequate health facilities to these new arrivals. May we suggest that organized medicine in Alaska take some positive steps to insure for us immigrants who have arrived here in the last several decades the provision of proper medical facilities and services without the present discrimination and segregation which is fundamentally intolerable in a democratic society.

**Robert D. Whaley, M. D., Assistant Editor**

## ERRATUM

On page 104 of the preceding number of ALASKA MEDICINE (Volume I, Number 4) in the article entitled "Recognition of the Wolff-Parkinson-White Syndrome on Routine Electrocardiograms" by Drs. Wilde and Gibson, line 12 of Case I should read **atypical** rather than a **typical**.



## "RIGHTS OF AUTHORSHIP"

In the operation of medical journals, it is accepted practice to send galley- or page-proof to authors for correction, along with the author's original manuscript, edited with slashing red-pencil to varying degree, depending upon the author's skill in writing, the standards of the journal, and last but not least, in the opinion of most medical authors, the disposition of the editor. By sending the proof to authors, the right of authorship is thereby protected, for the author can refuse to have his article published if he does not wish to accept changes by the editor. During the first year of publication the editor of *Alaska Medicine* has been open to criticism on this score for he has not, in most instances, sent proofs to authors for correction and approval. Although this may seem to indicate a high-handed and autocratic editorial attitude, such has not been intended. Chalk it up to inexperience, considerable disorganization, and a desire of the editors to publish each issue within at least a month or two of the scheduled time!

During this second year, the pupal period (see preceding page), continued growth and development should see transition to the adult stage with its manifestations of better organization, increased efficiency from the experience of countless errors, and adherence to a regular schedule so that each author will have the opportunity to review the printer's proof of his manuscript prior to publication. Finally, to look on the other side of the coin, if authors will follow the instructions outlined on advertising page "C" of each issue, the labors of the editorial staff will be made much easier.

**William O. Maddock, M. D., Editor**

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## ARCTIC HEALTH RESEARCH CENTER

In 1946 and 1947 a committee of the American Medical Association investigated health and allied problems in Alaska and as a result of their recommendations Congress in 1958 established the Arctic Health Research Center as an independent organization of the Bureau of State Services of the United States Public Health Service and established therein major divisions of interest including the study of flora and fauna, insect population, natural problems of cold climate, permafrost, and of disease prevalent in both animal and human populations in Alaska.

In the twelve years in which the Center has been operative it has made major contributions in a number of fields. The directorship of the Center has lain in the hands of individuals who have wisely encouraged an atmosphere of investigative freedom. In spite of the relatively low salary scales inherent in government service the Center has been fortunate in having a staff of interested and dedicated people who have been attracted by the challenges of this area and by the opportunity to work relatively independently on new problems.

Since its establishment the budget of this unit has not had any appreciable increase and with the creeping inflation which we have all experienced there has been necessarily a reduction in the scope of the Center's activities. Despite the intention at the time of the establishment of the organization, permanent quarters have never been provided and work has been performed in a scattering of inadequate rented buildings.

Alaska, as many of its physicians know through personal experience, has directly benefited by the presence of this organization. To preserve these services and to enable solution of the many major health problems still facing Alaska we should support and encourage efforts to increase the budget of the Center to meet increased operating expenses and to provide for adequate quarters, suitably housed, so that the important functions for which it was established may be carried out.

**Robert D. Whaley, M.D., Assistant Editor.**

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## AMERICAN PHYSICIANS ART ASSOCIATION

To encourage membership of Alaska physicians in the American Physicians Art Association, and to sponsor exhibition of their art work at the annual meeting of the American Medical Association, *ALASKA MEDICINE* has become a Sponsor Member of the APAA. The scope of the Association includes all forms of art work: painting, drawing, sculpturing and photography, to name a few.

We hope that Alaska will be well represented at the coming Annual Exhibition in Miami Beach this June. For further information or for application blanks write to the Editor, *ALASKA MEDICINE*; Dr. Edmund H. Smith, Regional Director, APAA, 3434 Cascadia Avenue, Seattle 44, Washington; or, Dr. Kurt F. Falkson, Secretary, APAA, 7 East 78th Street, New York, N. Y.

## President's Page



For my last President's Page, I would like to submit a letter to my nephew which expresses the way I feel about the profession which means so much to all of us.

Dear Billy:

Since you are seventeen years old, a senior in high school and considering the field of medicine for your life work, I will attempt to answer some of your questions. I hope in doing so I will be able to describe adequately what this field of endeavor means to me.

It is easy to understand why you are questioning whether or not the investment of thousands of dollars and many years of hard work in training for the medical field is advisable. It is also quite obvious why interrupted sleep and at least some ungrateful patients would not be particularly attractive to you. The thought of patients who fail to respond to treatment is frightening, to say the least. The realization that all of us are imperfect certainly is an important consideration in a field demanding such quick, accurate and intelligent action. Your question as to whether I would choose the medical profession again if I could turn back the clock is thought provoking.

The rewards which I have received in the practice of medicine and surgery will be mentioned briefly in the approximate order of their

importance. The most important reward I have received is a fascinating life attempting to preserve the most cherished possessions of man — life and health. I know of nothing in war or peace more thrilling than the recovery of a patient against seemingly impossible odds. This has happened in so many instances that I have concluded that if the doctor and the patient each do their absolute best, God is awfully good. If time should be measured by gripping experiences instead of tides and seasons some doctors' lives would be measured in centuries.

The supreme compliment that the patient pays a doctor in permitting examination and sometimes extremely radical treatment of themselves and their families is a great reward. Admittedly this is sometimes less than enthusiastic, but in the vast majority of cases, most flattering. Certainly I consider my patients as friends and I value their confidence and trust as something precious.

The pleasure of knowing people and their problems intimately and frequently being able to help is one of the assets of the doctor's life. I am sure that each of us has been inspired many times by the courage of heroic patients.

For many years I have considered that the truly wealthy people of this world are those who make a living at something they enjoy enough to consider it play. I know of many doc-



tors who are outstanding in their field although independently wealthy from childhood. The practice of medicine is a way of life I would expect to continue regardless of financial status.

Another reward of a medical life is the constant challenge of working for perfection and never approaching such a reward without persistent work, study and research. The boredom and monotony of a job done automatically, easily and repetitiously seldom invades this field.

Economic security, although of great importance to all of us, plays a poor last to the above things of value. However, it has been proven many times that very rarely does a financial investment pay more returns than funds used in self-improvement. What years of anyone's life constitute a better investment than those years of medical school and residency training? Material things are easily lost or stolen but professional skills are burglarproof unless we let ourselves become serfs of a socialized state. I hope for your sake that this can be avoided by the vigilance of those who realize they are responsible for the acts of their government.

It is true that in this field the goals we are working toward are difficult enough so that some failures are inevitable. But these are proof that our ideals are adequately high to challenge our abilities and best efforts. Despondency is frequently a result of attempting a difficult task and is a "hunter of big game", attacking for the most part those who are trying to achieve great things. Therefore accept it as a compliment to attempted achievement and remember that few worthwhile things are easily attained.

In regard to our ideals, nothing less than perfection should be acceptable. In constantly working for perfection in our knowledge, understanding and personal relations, we accomplish the most for our patients, our profession and for ourselves.

So my answer is yes! If I had the choice of profession again I would enter the same long and arduous course of training and practice. In spite of the questions which come to your mind, I know of no field of endeavor offering as rich or as full a life.

***GEORGE E. HALE, M.D., President***

*Alaska State Medical Association, 1959-1960*



# PROGRAM OF THE 15TH ANNUAL MEETING

of the

## ALASKA STATE MEDICAL ASSOCIATION

February 18, 19, 20, 1960

Anchorage

### WEDNESDAY, FEBRUARY 17

- 3:00 P.M. MEETING OF THE COUNCIL  
Home of Dr. George E. Hale,
- 5-7:00 P.M. COCKTAILS. Jade Room,  
411 H Street  
Courtesy of the Exhibitors
- 8:00 P.M. DEMONSTRATION OF CELLULAR  
CYTOLOGY AND BIOPSY  
TECHNIQUES  
Solarium, Public Health Service  
Alaska Native Hospital,  
3rd Avenue and Gambell Street  
Dr. Paul A. Younge
- 8:00 P.M. RENDEZVOUS EVENTS  
Tag Team Wrestling, Anchorage  
High School Gymnasium,  
Romig Hill  
Eskimo Show, Sydney Laurence  
Auditorium

### THURSDAY, FEBRUARY 18

- 9:00 A.M. REGISTRATION. Carpenters'  
Hall, 4th and Denali
- 10:00 A.M. WELCOME. Dr. George E. Hale,  
President A.S.M.A.
- 10:10 A.M. GREETINGS. Mayor of Anchorage,  
Mr. George Byer
- 10:20 A.M. GREETINGS. President of  
Alaska Methodist University  
Dr. Herbert L. Heller, Dean
- 10:30 A.M. REPORTS FROM  
GOVERNMENT AGENCIES:  
Department of Health and Welfare  
Harry V. Gibson, Director  
Division of Health

11:00 A.M. BUSINESS SESSION

12:00 Noon LUNCH

1:30 P.M. SCIENTIFIC SESSION

1:30 P.M. A Realistic Look at Cancer  
in a Population,  
Dr. John W. Cashman

A cancer epidemiologist is a medical specialist who studies the causes of cancers prevalent in a group of people. He observes such influences as those of sex, age, race, and occupation. Cancer is viewed not in detail, as individual cases, nor in one place, but in the aggregate, in groups and in widened varied areas. There have been two extensive studies of cancer epidemiology whose results are applicable to the United States at large. Results of these and other studies devoted to cancer among specific groups provide a realistic look at cancer in a population.

2:00 P.M. Treatment of Cancer of  
the Breast,  
Dr. John A. Schilling

The biologic behavior of the various pathologic types of breast cancer will be discussed. The current forms of surgical and irradiation therapy will be outlined with a presentation of results from the Surgical Service of the University of Oklahoma Medical Center. The current enigma concerning the choice of surgical and radiation therapy for cancer of the breast will be discussed.

2:30 P.M. The Local Physicians'  
Part in Cancer Control,  
Dr. John King

3:00 P.M. The Observed Prevalence  
of Heart Disease in Older Alaska  
Natives,  
Dr. Robert Whaley

Visits were made to 11 Alaska rural communities including those predominately Southern Eskimo, Northern Coastal Eskimo and Indian interior villages, under the sponsorship of the U. S. Public Health Ser-



vice Arctic Health Research Center and the then Anchorage Heart Association. All inhabitants, 35 years of age and older were surveyed by history, physical examination, and electrocardiograms for heart disease. A relatively high prevalence of both rheumatic and coronary disease was found.

### 3:15 P.M. RECESS. VISIT EXHIBITS

### 3:30 P.M. SCIENTIFIC SESSION

#### 3:30 P.M. Complications of Myocardial Infarction, Dr. Rodman Wilson

Myocardial infarction which does not immediately result in death may be followed by any of several dramatic and often puzzling complications. Among these are hyperthermia, hemorrhagic pericarditis, cardiac rupture, rupture of interventricular septum or papillary muscles, aneurysm formation, and "post myocardial infarction syndrome." Some of these complications have occurred in cases within the author's recent experience and these cases will be used to point up the discussion. Slides of a gross pathologic specimen will be shown.

#### 4:00 P.M. Management of Wrist Injuries, Dr. James W. Miller

Fractures and dislocations of the wrist area occur in all age groups. Their proper management can in most instances lead to a satisfactory functional and cosmetic result. The care of the routine, as well as severely comminuted Colles fracture, will be discussed in some detail. Examples of the more unusual carpal fractures and fracture dislocations will also be shown and discussed briefly. Early mobilization of the fingers and shoulders will be stressed.

#### 4:30 P.M. Prevention of Tuberculosis by Medical Methods, Dr. Julius L. Wilson

The success of chemotherapy in treating tuberculosis together with the difficulties and doubts which had dogged vaccination against this disease led naturally to hope for means of protection by the daily use of pills. Isoniazid would seem to lend itself well to this purpose being synthetic, potent and inexpensive. Animal experimentation has shown that guinea pigs and monkeys can be protected against progressive tuberculosis by INH. The evidence that any effect, good or bad, persists after such chemoprophylaxis is not conclusive.

The first planned trials of INH prophylaxis on humans were based upon Dr. Edith Lincoln's observation that children with active primary tuberculosis under INH treatment did not develop meningitis. Such a use to prevent progression, complications or more fatal forms of a disease has been named:

*Secondary Prophylaxis:* The cooperative study started in 1954 and carried through by the USPHS showed that good relative protection is given against meningitis but less definite effect is observed against other forms of tuberculosis. Our unpublished Phipps Institute Study on the effect of INH upon the tuberculin reactions among the Indian children of New Mexico indicates a statistically significant reduction in the size of reactions with 15% reverting to negative in one year.

The "treatment" of children with a positive tuberculin reaction is popular today. This form of prophylaxis is indicated in all infants infected under the

age of three, in recent converters among older children when there are other adverse factors.

*Primary Prophylaxis:* The administration of a drug to prevent infection is less well established as a useful procedure. Given adequate dosage of virulent organisms animals do become infected. Our New Mexico Indian children showed no significant difference between those treated and those on placebo pills in conversion rate to a positive tuberculin. The current USPHS study on protection of tuberculosis contacts will throw further light on primary as well as secondary chemoprophylaxis.

Obviously, it is much more expensive and cumbersome to give pills daily to all the uninfected for an indefinite period of exposure than to "treat" only the infected for one year. Therefore, until a way is found to incorporate a preventive into drinking water or food used daily, primary chemoprophylaxis is not practicable. It may be indicated, however, for the immediate protection of an infant with a tuberculous mother, or a person who has become briefly but dangerously exposed.

The future of chemoprophylaxis is not clear. It seems at present that a primary prophylaxis does not replace vaccination, but that secondary prophylaxis is effective.

#### 5:30-7 P.M. COCKTAILS. Courtesy of Anchorage Medical Society. Chart Room, Westward Hotel

#### 8:00 P.M. DEMONSTRATION OF CELLULAR CYTOLOGY AND BIOPSY TECHNIQUES

Solarium, Public Health Service  
Alaska Native Hospital  
3rd Avenue and Gambell Street  
Dr. Paul A. Younge

#### 8:00 P.M. ALASKA HEART ASSOCIATION BANQUET

Speaker—Dr. Herbert E. Griswold  
Chart Room, Westward Hotel

#### 8:00 P.M. RENDEZVOUS EVENTS

Jade Auction. Roller Rink,  
6th Avenue and E Street  
Eskimo Show. Sydney Laurence  
Auditorium

### FRIDAY, FEBRUARY 19

#### 9:00 A.M. BUSINESS SESSION, Carpenters' Hall, 4th and Denali

#### 9:00 A.M. REPORTS FROM GOVERNMENT AGENCIES:

9:00 A.M. Veterans Administration  
Dr. Grace E. Fields,  
Chief Medical Officer

9:45 A.M. Public Health Service  
Dr. K. Kasuga,  
Area Medical Officer in Charge  
Alaska Native Health Service



10:30 A.M. BUSINESS SESSION

12:00 Noon LUNCH

1:30 P.M. SCIENTIFIC SESSION

1:30 P.M. Epidemiological Survey of  
938 Patients Seen in Congenital  
Heart Clinic,

Dr. Herbert E. Griswold

From January 1955 to June 1959, 938 patients have been seen in our clinics. These patients have been analyzed in age groups with regard to: (1) sex distribution, (2) diagnosis of the cardiac lesion, (3) special diagnostic procedures used for evaluation (angiocardiology and cardiac catheterization), and (4) surgical procedures done for either correction or palliation of their disease. The instance of the various congenital heart lesions in order are: VSD (162 patients), Tetralogy of Fallot (98 patients), ASD (96 patients), PDA (77 patients), pulmonary stenosis (56 patients), aortic stenosis (29 patients), and coarctation of the aorta (28 patients). There were 72 patients who had non-cyanotic congenital heart disease with complex and combined lesions and 29 patients had complex cyanotic congenital heart disease. One hundred ninety-nine patients had innocent murmurs, and it is of interest that these murmurs were found primarily in boys. Two-hundred ninety right heart catheterizations were done of which 72 were unsatisfactory for diagnosis. One-hundred fifty-one angiograms were done, 35 of which were unsuccessful. There have been 181 surgical procedures done on these patients, both palliative and corrective, of which 39 have had either an unsuccessful result or have died postoperatively.

2:00 P.M. Cytology—Past, Present  
and Future,

Dr. George Adams

Cytology has come of age only during the last decade, but its actual history goes back more than 100 years. Increasing numbers of patients are benefiting from cytological screening for cervical cancer. Refinements of technique are yielding successes in clinical applications to other cancer sites. Contributions of histochemistry, phase microscopy, fluorescence microscopy, and electron microscopy, and microscopic colposcopy are promising ancillary approaches. Bottlenecks to full utilization of available knowledge still exist, but these are being overcome in an orderly fashion. Automation is gaining in reliability, and promises to become a major factor in the eradication of death from cervical cancer.

2:45 P.M. Needed, A Broad  
Spectrum Education for  
Competent Physicians,

Dr. Fount Richardson

The Family Doctor movement became organized on a National scale in 1948, when it was realized that many general practitioners were being pushed out of hospital staffs in some of our cities. Another "raison d'être" of the organization was to provide, thru our existing mechanisms, our schools, and teaching hospitals, means by which the GP could find competent post-graduate and refresher courses. Organized as the Academy of General Practice it grew in numbers, strength, and importance, rapidly. Courses were organized in most medical schools—a sort of Broad spectrum medical education was emphasized, and the trend toward specialization to too high a degree, was slowed. The goals are not yet reached but the Academy is

beginning a program to interest and show our medical educators that a widely educated and properly trained general practitioner is the only possible answer for medical care in every area outside of the larger Medical Centers.

And, by the same token, a well trained general practitioner is the desirable, economical, and reasonable answer to the medical care problem for even those patients who live in our great cities.

3:15 P.M. RECESS. VISIT EXHIBITS

3:30 P.M. SCIENTIFIC SESSION

3:30 P.M. Respiratory Diseases  
in the Aged,

Dr. Julius L. Wilson

Assuming arbitrarily that the term refers to people who are 72 years of age or over, we find certain differences in the frequency of various respiratory diseases among them. Minor upper respiratory infections are less frequent but may lead to more serious broncho-pulmonary conditions. The era of greatest tendency to bronchogenic cancer and diffuse obstructive emphysema is past, possibly because individuals with such tendencies have been eliminated from the aged population. The lungs themselves do not wear out and senile emphysema is discarded as a clinical entity, although still a descriptive pathologic notation. The heart is more likely to give out first and we see either cor pulmonale, resulting from pulmonary fibrosis, or pulmonary congestion resulting from cardiac failure.

Pneumonia, "the old man's friend," is still a terminal event for many aged people but its terror has been blunted by the antimicrobial drugs whether it occurs after a bone fracture or after a common cold.

Tuberculosis, long thought to represent in the aged a flare-up of ancient disease and regularly to follow a chronic scirrhous pattern, has changed. In the first place it is much more prevalent among the aged, especially males, than in any other age group and should always be suspected in persistent coughers. Tuberculosis not frequently arises as a progressive and advanced disease in old men who had perfectly clear chest x-rays a year or two before symptoms arose. This disease yields readily to the prompt and prolonged administration of antimicrobial combinations. The hospitalization and rehabilitation of elderly patients with pulmonary tuberculosis present special problems with ambulatory treatment in the hospital desirable, but only partial rehabilitation as a rule.

Chronic bronchitis is almost a regular feature of old age. In England it is more frequent and more often accompanied by serious emphysema than here. It calls for medical treatment with patient and persistent control of infections and broncho-spasm if present.

Finally, one must recognize the fact that old people must be treated as people and not as a "case" of this or that disease. They regularly have two or more abnormal conditions and the whole patient must always be treated.

4:00 P.M. Modern Concepts of  
Mental Hospital Practice,  
Dr. John L. Haskins

The older concept of the Mental Hospital was a place set apart from the Community, by custom and prejudice. The more modern idea is that there should be an affiliation of hospital and community. The employment of the advances in therapy make it possible to individualize the patient, and also make



it possible that most patients be cared for in the hospital but a short time and then live at home, and return to the hospital only for follow up care as indicated. The rehabilitation of the individual into a useful member of society is the present aim of the institution.

4:30 P.M. Wound Healing,  
Dr. John A. Schilling

The events of wound healing will be reviewed. New data concerning the local cellular response will be permitted. Factors that delay wound healing will be outlined. Wound complications, their cause and prevention will be discussed.

7:00 P.M. ALASKA STATE MEDICAL  
ASSOCIATION BANQUET  
Chart Room, Westward Hotel  
Speakers—Dr. Louis M. Orr and  
Dr. Fount Richardson

9:00 P.M. RENDEZVOUS EVENTS  
Miners and Trappers Ball.  
Aleutian Gardens, Seward Sighway

**SATURDAY, FEBRUARY 20**

9:00 A.M. BUSINESS SESSION.  
Carpenters' Hall, 4th and Denali  
9:00 A.M. REPORT FROM  
GOVERNMENT AGENCY:  
Alaska Department of Public Welfare  
Mr. Henry Harmon, Director

9:45 A.M. BUSINESS SESSION

12:00 Noon LUNCH

1:30 P.M. SCIENTIFIC SESSION  
1:30 P.M. Treatment of Fractures  
of the Tibial Shaft,  
Dr. James W. Miller

Fractures of the tibial shaft occur from both direct and indirect trauma. These fractures for the most part can be handled best by closed methods. The management of both simple and compound tibial fractures will be discussed in detail. The avoidance of open surgery because of increased morbidity will be stressed. The use of a Steinmann pin above the fracture site to anchor the cast is commonly used and is good practice. The handling of unstable or segmental tibial fractures by fraction or intramedullary pin fixation will also be covered.

2:00 P.M. Lesions of the Uterine  
Cervix—Their Evaluation and  
Treatment,  
Dr. Paul A. Younge

The increased use of cytology in the past twelve years has saved thousands of women from dying of cervical cancer. Its use has led to the detection of hundreds of unsuspected invasive cancers, thousands of carcinomas in situ (intraepithelial cancer) and an equal number of possible premalignant lesions known as anaplasia, basal-cell hyperactivity or atypical hyperplasia. On the other hand, cytology has led to many unnecessary hysterectomies and major surgical diagnostic procedures. The individualization of the diagnostic techniques necessary to properly evaluate and treat these lesions of the cervix according to the clinical cytological and pathological findings will be illustrated and discussed.

2:45 P.M. Treatment of Cancer  
of the Prostate,  
Dr. Louis M. Orr

Cancer of the prostate occurs very frequently in aging males but is diagnosed early enough for complete cure in a small percentage of cases. Routine rectal palpation offers the only means of consistent early diagnosis at a stage when radical total prostatectomy is successful. Hormonal therapy by means of orchiectomy and administration of estrogens and androgens is the fundamental means of palliation, but use of radioactive isotopes offers promise as another form of palliative treatment and a possible curative treatment.

3:15 P.M. RECESS VISIT EXHIBITS

3:30 P.M. SCIENTIFIC SESSION

3:30 P.M. What is the Pathogenesis  
of Coronary Artery Disease,  
Dr. Herbert E. Griswold

A multiple disciplinary approach to the solution of atherosclerosis and coronary artery disease has brought forth much new evidence during the past ten years. Potential factors such as diet, blood coagulation, emotional stress, physical activity, body build and family history have been studied with varying success.

A look into the crystal ball in the light of present information is still dangerous but can be thought-provoking.

4:00 P.M. Frostbite—Treatment by  
Rapid Rewarming,  
Dr. W. J. Mills, Jr. and  
Dr. Robert Whaley

Experimental work in the last twenty years has appeared to demonstrate the effectiveness of Rapid Rewarming as a satisfactory early method of treating the frozen extremity. More recent physiological studies in numerous laboratories have shed light on the pathogenesis of freezing injury, supporting the animal experimental results. Utilizing the concept of rapid rewarming, when possible, deep diathermy and early physiotherapy, cases are presented with evaluation of this method.

4:30 P.M. Intestinal Obstruction,  
Dr. John A. Schilling

The pathologic physiology of small and large bowel obstruction will be presented. The causes, diagnosis, and surgical management will be reviewed, including preoperative, operative and post-operative care.

5:30-7 P.M. HOSPITALITY HOUR:  
Home of Dr. George E. Hale,  
1727 11th Avenue

8:00 P.M. RENDEZVOUS EVENTS  
Coronation Pageant,  
Anchorage High School,  
Romig Hill

11:00 P.M. CORONATION BALL,  
Aleutian Gardens, Seward Highway

**SUNDAY, FEBRUARY 21**

**RENDEZVOUS EVENTS**

**MONDAY, FEBRUARY 22**

**RENDEZVOUS EVENTS**

# *News of Government Services*

## **THE NAVAL MEDICAL DEPARTMENT, ALASKA SEA FRONTIER**

The Naval Medical Department is represented in the Alaskan Sea Frontier by Medical Officers, Medical Service Corps, Nurse Corps and Hospital Corps personnel, located in Station Hospitals at Adak and Kodiak.

The District Medical Officer and Senior Flight Surgeon is Captain Richard W. Worthington, MC USN. Under his direction military personnel, their dependents, Civil Service persons sustaining on the job illness or injury and certain Veterans Beneficiaries in the area are provided with general types of medical care.

Close liason is maintained with both military and civilian medical facilities at Kodiak and Anchorage. This association is necessarily not as frequent as we would desire because of the considerable distances separating us.

Excellent physical plants are utilized in these Station Hospitals. Modern well equipped operating and obstetrical delivery rooms, as well as X-ray and Laboratory services are available. Major general surgical, gynecologic, orthopedic and obstetrical operative procedures are performed by qualified surgeons and anesthetists.

The hospitals are rated at 20 authorized beds each. These can be readily expanded to several times this number.

Outpatient clinics are large and preventive medicine is practiced through well baby clinics, prophylactic immunizations, routine annual chest x-rays, etc.

Physiotherapy units provide care, in addition to aforementioned groups, to crippled children sponsored by the Alaskan Elks Association.

The hospitals also receive sick and injured persons both military and civilian, evacuated from remote stations by Coast Guard and Navy ships and planes operating along the Aleutian Chain and Southwestern Alaska.

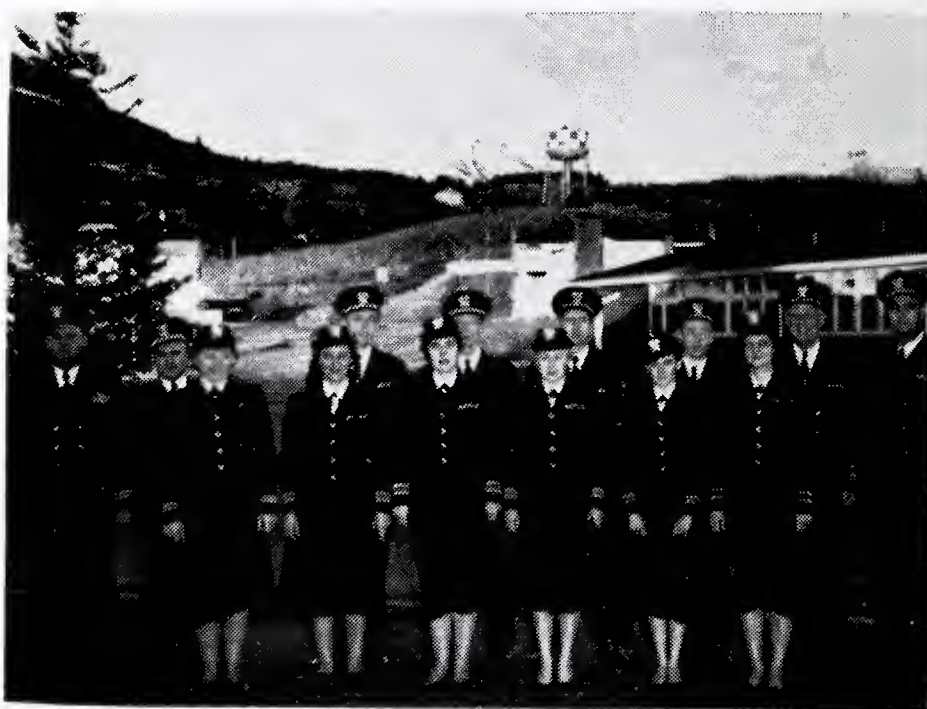
Sanitation units operate in the Medical Department carrying out food, water and sewage disposal inspections in establishments frequented by military personnel. Pest control is conducted by these same units. Medical Department personnel are generally enthusiastic about their Alaskan assignments. Requests of extension of duty are not uncommon. Undoubtedly some of these people will make their future homes in the area.

We cordially extend our invitation to physicians and others in the field of medicine who visit Adak or Kodiak Islands to visit our activities and see how your Navy is represented in the Alaskan Medical Community.

**Submitted by Captain John R. Palmer, MC, USN**

*Front Row (left to right), Nurses I. L. Vesper, A. M. Troyan, M. R. Reilly, E. J. Maguire, B. A. Rancourt, W. E. Dwenger.*

*Back row (left to right), R. T. Garrett, D. A. Rowell, H. J. Robinson, R. J. Werra, D. H. Yarley, W. H. Sehumacher, J. R. Palmer, R. W. Worthington.*





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*Research in the Service of Medicine*

# Alaska Medicine

Volume II. Number 2

June 1960

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### COVER PHOTO:

KENAI LAKE

Hewitt's Drug Store,  
Anchorage

### PUBLISHING CONSULTANT

Herb Rhodes

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Business Office—742 K Street

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## President's Page



With the memories of the February meeting in Anchorage and with the accomplishments of George Hale and his willing helpers fresh in my mind, I approach this first writing of the President's Page with trepidation in my soul, and trembling in my hand. What should one say, should I steer away from controversy, should I avoid this question or that, just what should I do? After ten years of experience, friendship and acquaintanceship with physicians of Alaska, I should know by now that the best policy is to speak my piece, air my thoughts, and be ready to dodge if necessary, so here goes.

I am sure that no one approaches the presidency of our association with the full knowledge of all it entails. Every day something new shows up, and with it a new knowledge of the responsibilities you have entrusted to me and our other officers. I speak for all of us, I know, when I say we plan to justify that trust.

In the March issue of Alaska Medicine, Joe Deisher had a letter "The Camel in Alaska." I would like to present for your consideration that there exists for organized medicine a whole herd of camels and who is to say which is the biggest. A few examples will suffice to justify my point.

In two recent issues of Look magazine there are two articles that focus on the practice of medicine. On the cover of March 1 appears these words: "TV's Roger Smith: How He Survived His Doctors' 'Mistakes'." The article begins on page 70 under a different title. On page 25 of the March 29 issue is an article entitled "Our New Hospital Crisis." I commend both of these articles to you for your reading and a little quiet thought.

The regrettable part about this is that both articles contain a great deal of truth, but there is much the doctors of the United States, including you and me, can do about it.

Consider also for a moment the actions of our legislators in the State of Alaska on matters concerning medicine. You know there is something we can do about this, at least, we can make an attempt.

Communications have been received from our two senators and our congressmen in response to the telegrams sent to them in regard to resolutions passed at our meeting. I hope there is room in this edition of Alaska Medicine to print them for you to read and THINK.

I could list many more, but that isn't the point. Perhaps we should stop thinking about a camel here and there, and really begin to strengthen the entire compound. If the doctors of Alaska and our 49 Sister States will look closely at the fence around our camp, we will find most of the gaps of our own making. We have opened the way for the whole herd of camels.

If we will rebuild and strengthen our fence with the corner posts of Forthrightness, Consideration, Honor and Integrity, I believe we will see results. Medicine still deserves the respect, the gratitude, the love that the family doctor always had, even in the memory of many of us now practicing, and I believe we can restore much of that which has vanished. Yes, friends, let us look well to our fences and I believe we will not need to worry about the camels.

Benjamin E. McBrayer, M.D.  
President, Alaska State Medical Association

# PRINCIPLES IN THE CARE OF HAND FRACTURES

ADRIAN E. FLATT, M.D., F.C.S., F.R.O.S. (Eng.)\*

## PART I

### CLOSED FRACTURES

"To illustrate a principle you must exaggerate much and you must omit much". -  
Walter Baghot

It is of the the nature of the hand to suffer fractures. These injuries cannot be rationally treated unless it is recognized that the most logical position in which to place them is the Functional Position of the hand. While the hand at rest naturally assumes this position, it is also the position in which it is held for most prehensile activities (Figure 1). This position is based upon the arches of the hand. The skeleton of the hand is built into a series of integrated arches and maintenance of these arches is of fundamental importance to good function.

In order to obtain the necessary strength and mobility within the skeleton of the hand the bony arches are cross-linked, but all have their concavity toward the palm, thereby forming the hand into a cup. There are two transverse arches and a series of longitudinal arches (Figure 2). The proximal transverse arch is formed by the carpal bones and is of permanent shape. The distal transverse arch is mobile and passes through the level of the metacarpal heads; it is this arch which allows the cupped hand to accomodate objects of various size. The series of longitudinal arches is made up of all the finger rays. The metacarpal forms one side of the arch. The apex, or keystone, is at the level of the metacarpophalangeal joint and the other side of the arch is made of the three phalanges. The longitudinal arches are very mobile and alter their shape in response to the demands of grasp.

The long bones, both metacarpals and phalanges, are the rigid structures over which the power of the flexor and extensor muscles is transmitted.



DR. FLATT

When one of these is broken, an arch is destroyed and deformity results. The site of fracture will determine the type of angulation produced by the muscle imbalance but for any given site the deformity is constant and characteristic.

Because the Position of Function represents the balance of power of muscle forces acting over the long bones, it follows that fractures of these bones can be reduced and held in the position of reduction by maintaining them in the Position of Function. This principle is equally applicable to a solitary fracture or to multiple fractures of the metacarpals and phalanges.

### IMMOBILIZATION

Splints which fulfill the requirement of maintenance in the Position of Function are commercially available or can be easily made in the home workshop (Figure 3). For multiple fractures and for compound injuries the Mason-Allen Universal splint is invaluable. This splint which

\*From the Department of Orthopedic Surgery, State University of Iowa, Iowa City, Iowa. A second part on open fractures will follow in the next issue.





Fig. 1

The Functional Position of the hand is the position of balanced muscle power. It is from this position that the three basic prehensile grips, Tip, Lateral and Palmar are developed. From: Flatt, A.E., *Hand Deformities*, Vol. 2, Chapter in *Traumatic Medicine and Surgery for the Attorney*. Central Book Company, New York, 1960.

was devised during the Italian Campaign of World War II was originally intended to "hold the hand in the position of function during all stages of transport and permit the application of a pressure dressing". The splint fulfills these functions admirably, but in addition it was found by experience to be successful in reducing and holding reduced fractures of both phalanges and metacarpals, because it holds fractured bones in the position of function.

Fractures of a solitary finger can be successfully treated on a padded malleable aluminum splint which is molded to the Functional Position. These splints are easy to make, but the commercially available Burnham Digital splint has certain advantages hard to reproduce in limited quantities. This splint can be used on any finger. It is particularly useful to the lonely practitioner because after it is fixed in the correct position on the forearm, wrist and hand, the doctor's hands are free to reduce the fracture onto the splint. A reduction should follow the time honored principle in fracture treatment of matching the mobile distal segment to the less mobile proximal one.

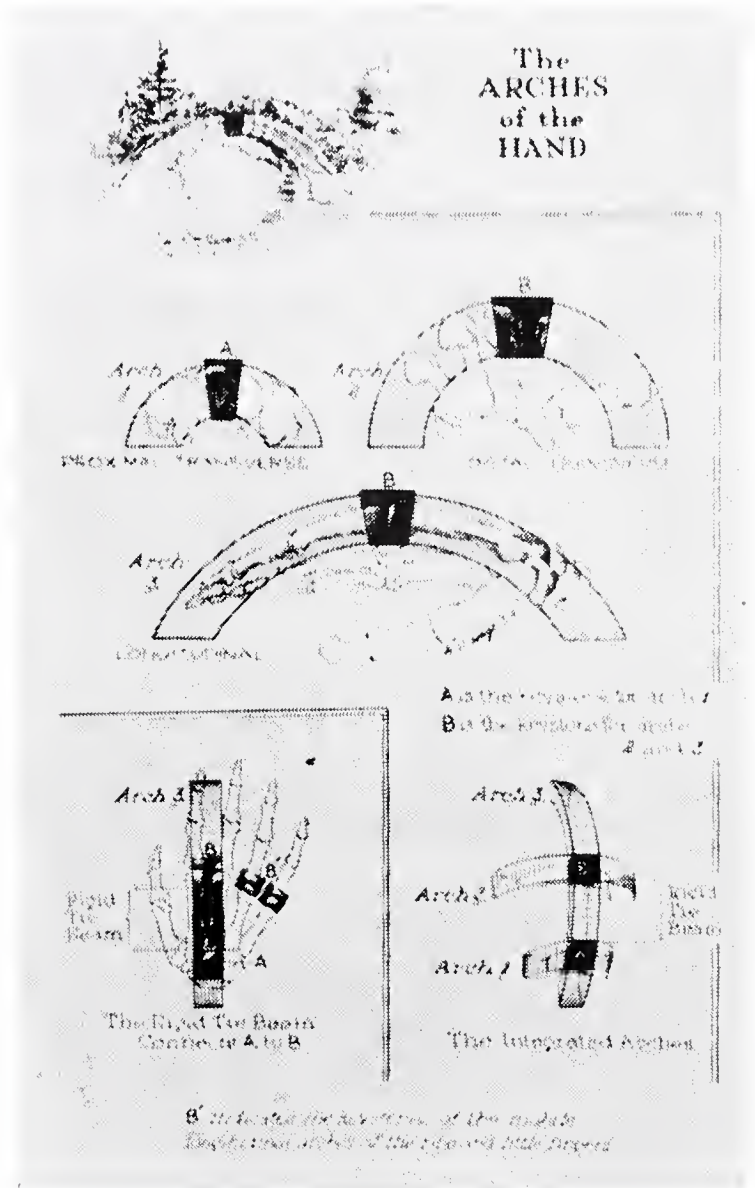


Fig. 2

The strength of the hand skeleton is associated with its organization into a series of arches. The rigid proximal transverse arch passes through the distal part of the carpus. The mobile distal transverse arch passes through the metacarpal heads. The four finger make up the complex of the longitudinal arch. Both the longitudinal and distal transverse arches have a common keystone, the metacarpophalangeal joint. From: Flatt, A.E., *The Care of Minor Hand Injuries*, C.V. Mosby Company, St. Louis, 1959.

Either splint can produce poor results if improperly applied or if the splint slips during use. The dome or dorsal curve of the splint should lie under the metacarpophalangeal joint but should not slip distally even as little as one inch (Figure 4). The keystone of the arch at the metacarpophalangeal joint will be broken and the joint will extend and even go into hyperextension. At the same time the wrist will move from a position of extension to one of neutral, thereby tending to increase the pull into hyperex-

tension of the extrinsic extensor tendons on the metacarpophalangeal joints.

There is no substitute for the Position of Function in the treatment of hand fractures. Immobilization in a flat plane of either finger or palm collapses the arches and destroys hand function. Tongue depressors are for depressing tongues and to strap a fractured finger to such a flat board will displace the fracture ends, cause malunion and destroy future function. An equally dreadful piece of apparatus is the banjo splint. This "splint" suspends the fingers in extension and readily allows gross displacement of phalangeal fractures (Fig. 5).

When a fractured finger is supported in the correct functional position, the immobilization will be so effective that all pain will rapidly disappear and consequently the adjacent fingers will be used. There is no justification in bandaging the whole hand when a single digit is fractured. Efficient immobilization of an injured finger on a splint will create very little interference with the function of the remainder of the hand.

### HEALING TIME

In general the blood supply of hand bones is so good that fractures show clinical union within three weeks. Transverse fractures will unite more slowly than oblique fractures because the former have a smaller surface area of raw bone. For the same reason, phalangeal fractures usually take longer to heal than metacarpal fractures. X-ray films are of no value in deciding the degree of union since at three weeks rarely will they show the presence of callus. The films are useful, however, in assessing the position of the bones at the fracture site. Malunion can occur and if left undiscovered until three weeks have elapsed, the fracture will usually be found to be so consolidated that operative correction will be needed. The decision as to whether to remove the immobilization after three weeks is a clinical one. It is not based upon the appearance of either the x-rays or the calendar. Lack of pain at rest, lack of pain and lack of movement on gentle passive examination of the fracture site indicate that there is sufficient "stickyness" at the fracture for the splint to be safely discarded.

Non-union is rare and is usually produced by forceful separation of the fragments or by excessive movement allowing a shearing force to pass through the fracture site.

Early movement appears to have become a pass-word in fracture treatment in recent years, but in hand fractures such movements can be an active hindrance to full recovery. The fingers and palm will recover a satisfactory and normal range of movement even after severe fractures, if they are permitted sufficient recovery time. Damaged tissues must be allowed a reasonable time to recover from the original trauma before the additional irritation produced by movement is added. Early manipulations rupture granulation tissues in the healing area with resultant hemorrhage and, subsequently, more scarring.

### CARPAL FRACTURES

A sprain of the wrist does not occur until fracture of the navicular has been excluded. This dogmatic teaching is fundamental in the care of injuries to the carpus. The carpal navicular is second only to Colles fracture in frequency and yet because the symptoms are relatively minor, the injury is frequently dismissed by the victim or his doctor as a "sprained wrist".

A cautious approach to this fracture is justified by the high incidence of non-union and subsequent arthritis. The fracture frequently does not show at the time of initial injury even when the necessary oblique x-ray view is taken.

If the clinical signs are significant and the x-rays are negative the wrist and thumb must be immobilized for two weeks in a cast. At the end of this time a new set of x-rays should be taken after removal of the cast. If all symptoms have gone and the x-rays do not show a fracture, then a truly sprained wrist has been held at rest for the correct recovery period. If, however, a fracture line shows in the navicular, the correct treatment has been promptly started and several weeks of immobilization have been cut from the total period needed for union to occur.

Navicular fractures heal slowly even when the treatment has been correct from the outset. Non-union can occur in fractures which have been treated correctly, but it is almost the rule in those which have been inadequately treated. This high incidence of non-union is caused by the poor blood supply to the proximal pole of the bone. In most cases the major part of the blood supply enters at the distal pole and its course to the proximal pole will be destroyed by a fracture of the wrist.



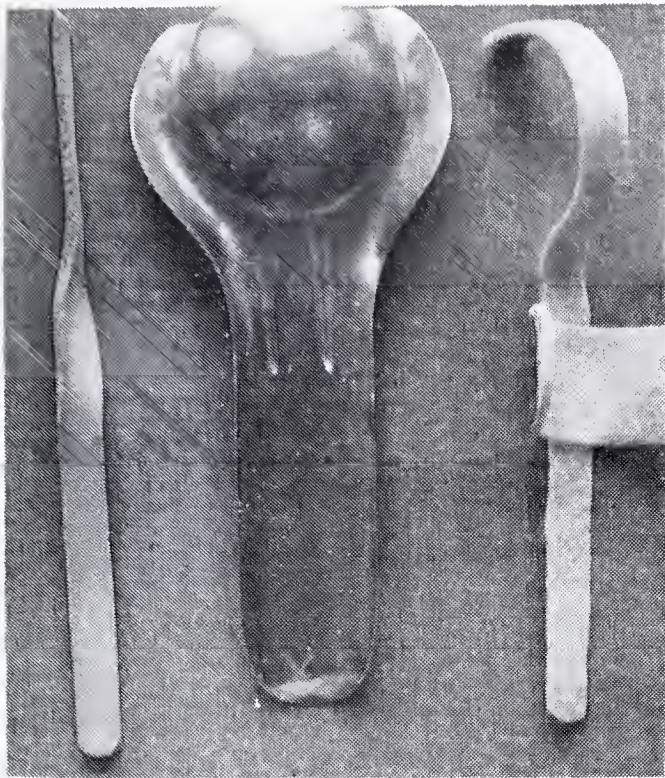


Fig. 3

The central splint is the Mason-Allen Universal Splint which is invaluable for the early care of many hand injuries. On the left is shown a home-made splint of malleable metal strip covered with sponge rubber. On the right is the more efficient commercially available Burnham Digital Splint. From: Flatt, A.E., *Hand Deformities. Chapter in Traumatic Medicine and Surgery for the Attorney*, Vol 2. Central Book Company, New York, 1960.

Immobilization must be continued until there are clinical and radiological signs of union. This may take several months and ultimately a patient is ill-served if his doctor succumbs to pleas for cast removal before union has occurred.

In the carpus only the navicular and triquetrum bones are fractured with any frequency. Triquetral fractures are not commonly recognized but can be a source of discomfort and weakness of grip for a considerable time (Fig. 6). These fractures usually occur from a fall with the wrist in full pronation or extreme flexion. The flake of bone is torn off by the extreme tension on the dorsal radio-carpal ligament. The fracture will be missed unless the site is examined clinically and x-rays are taken to silhouette the site. The symptoms of these fractures always subside and no drastic treatment is needed; supportive strapping is usually sufficient. Failure to recognize this injury can lead to unjust accusations of mal-injuring.

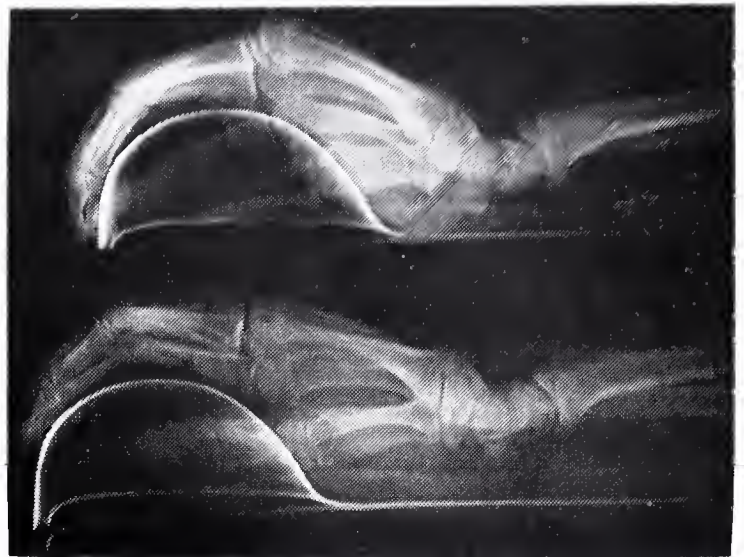


Fig. 4

Top view shows the Mason-Allen Splint properly applied and giving correct support to the arches of the hand. The lower view shows how the arch system of the hand is destroyed if the splint is not correctly applied. Peacock, E.E., *Management of Conditions of the Hand Requiring Immobilization. Surgical Clinics of North America*, Vol. 33, page 1299, 1953.

## METACARPAL FRACTURES

### Basal Fractures

With the exception of the thumb basal metacarpal fractures are not difficult to treat and usually heal in about three weeks with a good result. Basal fractures of the thumb involving the metacarpophalangeal joint are extremely difficult to treat. Basically this injury is a dislocation with an accompanying chip fracture. It is caused by a fall on the abducted thumb and unless perfectly reduced, will result in a stiff and painful joint. Many methods of closed reduction employing traction on the thumb have been advocated. None is uniformly satisfactory. It seems that the only certain way of obtaining good reduction is by replacing the small fragment at open operation; the reduction must be maintained by a plaster cast for at least three weeks. This advice is not always easy to follow since it implies the use of good operating room facilities, but follow-up studies show that the end results of closed reduction methods are so poor that operation should be attempted whenever possible.

### Shaft Fractures

The four finger metacarpals should be considered in two groups; the two border metacar-





Fig. 5

*If the Banjo Splint is used to "suspend" fractures of the fingers, gross deformities can develop. Malunion in this position will cripple the hand.*

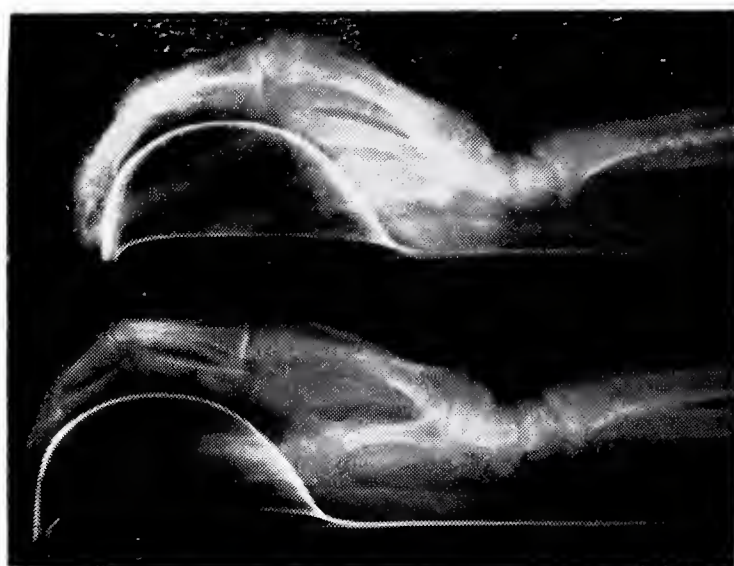


Fig. 6

*Lateral view of a painful wrist will often show a flake fracture from the dorsum of the triquetrum. Anyone accused of malinaging with wrist pain is entitled to have this x-ray taken.*



Fig. 7

*In fractures of the metacarpal neck the intrinsic muscles constantly produce an angulation at the fracture site. The metacarpal head protrudes into the palm and must be reduced to its normal position. From: Flatt, A.E., *The Care of Minor Hand Injuries*, C. V. Mosby Company, St. Louis, 1959.*

pals of the index and little fingers and the two inner metacarpals of the middle and ring fingers.

The inner metacarpals are so well splinted by their adjacent metacarpal shafts that very simple immobilization is sufficient for their treatment. A dorsal plaster slab or a palmar digital splint can be used. The splint is used to remind the patient not to use the hand excessively during the healing period. It can be removed between fourteen and twenty-one days after application. Angulation can be produced in these fractures by the pull of the intrinsic muscles (Figure 7). It can be felt clinically and seen radiologically and should be corrected by manipulation before the splint is applied.

Border metacarpal fractures are prone to angulation and over-riding; they can be difficult to treat particularly if the fracture line is transverse. Closed reduction is usually practicable and reduction can be maintained in a well-fitted plaster cast. Operative treatment by pinning with Kirschner wires is extensively used for these fractures and yields excellent results providing the operation is done under the protection of operating room conditions.

### Neck Fractures

A fracture of the neck of a metacarpal is a serious injury. The metacarpal head tilts into the palm producing a dorsal angulation at the fracture site. If the fracture is allowed to unite in this position, the imbalance of the intrinsic and extrinsic muscle is so great that finger function is grossly disturbed (Figure 8).

The fracture is reduced by placing the metacarpophalangeal joint at ninety degrees, thereby using the tightened collateral ligaments to control the small head fragment. When pressure is applied backward along the line of the proximal phalanx against counter-pressure in the dorsum of the hand, the metacarpal head is replaced in normal relation to the metacarpal shaft.

Plaster immobilization is necessary for three weeks with the finger held in the reduction position. Serious pressure necrosis of the underlying tendons in the flexed finger can occur if care is not taken to pad the plaster over both the proximal and middle finger joints. These joints must not be immobilized in acute flexion; anything less than ninety degrees will risk development of permanent flexion contractures.

The fracture can be fixed with one or two Kirschner wires sufficiently well for external





Fig. 8

If metacarpal neck fractures are allowed to unite in their unreduced position, function of the hand will be grossly disturbed. The power of the tendons will be unbalanced and the palmar protuberance of the head is often very painful. From: Flatt, A.E., *The Care of Minor Hand Injuries*, C. V. Mosby Company, St. Louis, 1959.

immobilization to be unnecessary. However, the results of closed treatment are so satisfactory that pinning is rarely justified.

### PHALANGEAL FRACTURES

Complications can readily occur in these fractures and their treatment demands constant attention during the early days after injury. Because the phalanges lie free within the skin cylinder of a finger, lateral angulation and rotation are possible at the fracture site. Unless accurate reduction is obtained in all planes, very considerable disability can occur. Reduction is

best obtained by traction manipulation into flexion onto a functional splint. Immobilization is usually only necessary for three weeks but fractures at right angles to the mid-shaft of the proximal and middle phalanges may take an additional week to become sufficiently sticky for the splint to be removed.

Occasionally these fractures are so unstable that they can be treated more efficiently by transfixion with a fine Kirschner wire before being immobilized on the splint. The indications for pinning these fractures are rare and virtually all these fractures can be treated satisfactorily by closed means.

#### Proximal Phalanx

Proximal phalanx fractures are one of the commonest finger injuries and will lead to considerable disability if inadequately treated. The line of pull of the intrinsic muscles produces a volar angulation at the fracture site (Figure 9). This deformity can be held reduced on a splint in the Functional Position (Figure 10). The longitudinal line of pull on this fracture is of great importance. The fingers do not flex in a line parallel with the borders of the palm and attempts to force them into this unnatural position must produce rotation at the fracture site. When any one finger flexes into the palm its nail will point to the tubercle of the scaphoid, and it is in this line that the immobilization must be applied.

#### Middle Phalanx

Middle phalanx fractures will angulate to the palmar aspect if the fracture line is distal to the insertion of the flexor digitorum sublimis,



Fig. 9

Fractures of the shaft of the proximal phalanx angulate to the palm. The angulation is produced and maintained by the pull of the intrinsic muscles passing into the dorsum of the finger. From: Flatt, A.E., *The Care of Minor Hand Injuries*, C. V. Mosby Company, St. Louis, 1959.



**Fig. 10**

A. Shows the typical angulation produced at the fracture site in the shaft of a proximal phalanx by the pull of the intrinsic muscles.



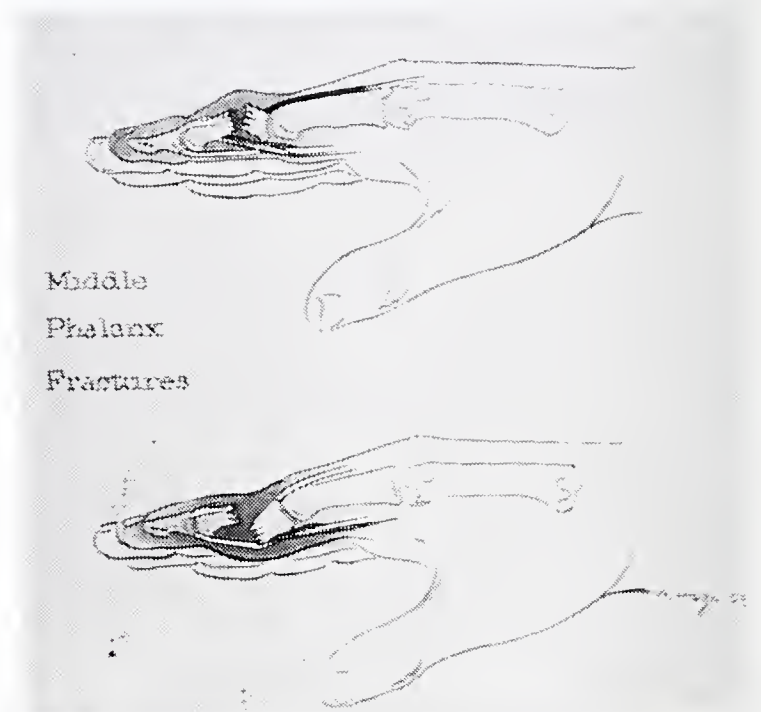
**Fig. 10**

B. Demonstrates that this fracture can be perfectly reduced by placing the finger on a splint in the Functional Position.

and will angulate to the dorsum if the fracture line is proximal to this tendon insertion (Figure 11). Reduction is usually easy by a combination of traction and direct pressure over the fracture site. If the finger is then placed on the digital splint in the Functional Position, the reduction will be maintained.

### Distal Phalanx

Distal phalanx fractures are usually comminuted and produced by some form of crush injury. The treatment of the results of the crush injury are more important than the actual bony damage. Hematoma frequently builds up within the pulp and beneath the nail and should be released by a trephine hole in the nail or by a small stab wound in the pulp if the hematoma is entirely within the soft tissues. Attempts to mold together the comminuted fragments may produce a somewhat better looking x-ray but will produce no significant difference in the ultimate functional result.



**Fig. 11**

The angulation in fractures of the shaft of the middle phalanx is produced by the pull of the Flexor Digitorum Sublimis muscle. If the fracture is proximal to the muscle insertion, the fragments will angulate dorsally. Volar angulation will occur when the fracture site is distal to the insertion of the muscle. From: Flatt, A.E., *Hand Deformities. Chapter in Traumatic Medicine and Surgery for the Attorney*, Vol. 2, Central Book Company, New York, 1960.



## IN MEMORIAM:

**WILLIAM P. BLANTON, M.D.**

**STAN LEE EDWARDS, M.D.**

**A. O. ROGERS**

### ***WILLIAM P. BLANTON, M. D.***

The sudden and unexpected death of William P. Blanton on April 4, 1960, while performing a surgical procedure at St. Ann's Hospital, left the Alaska State Medical Association with a great loss which will become more apparent as the scope of the work he initiated on its behalf comes to light. Many of the present activities were organized by him, and it was his imagination and persistence which carried them through to completion.

Bill served the Alaska Territorial Medical Association as Secretary from 1934 to 1953. He was elected president by his fellow members in 1954, thus completing twenty unbroken years of service to his medical colleagues throughout the Territory.

At the time of his death he was a district councilor of the Juneau District Medical Association.

William P. Blanton was born in Buda, Texas, on June 20, 1902. After graduating from the University of Colorado Medical School in 1933 and serving his internship at Swedish Hospital in Seattle, he came to Juneau where he became associated with Doctor Harry DeVighne.

In 1936 he, with Doctors W. C. Council, C. C. Carter and W. M. Whitehead, founded the Juneau

Clinic. Many Juneau residents lost with Bill's death, their family doctor who went beyond his ordinary medical duties in providing help, counsel, advice and comfort to his patients. During his medical career, Bill devoted considerable study to urology, his special field of interest. The new Juneau Clinic Building, constructed in 1958, is the culmination of many years of devoted planning by Bill, and is in a sense a physical memorial to him.

He served as United States Jail physician for many years, and was the designated physician for the Alaska Juneau Mining and Standard Oil Companies of Juneau from 1934 until the time of his death. Other medical affiliations included the American Cancer Society. He served in the capacity of State Medical Director of the latter society. A past president of the Juneau Rotary Club, Bill also contributed much of himself to the Elks, Masons and Chamber of Commerce.

Among his many activities, perhaps his greatest pleasure was in the role of a sportsman. A remarkable marksman and hunter, he belonged to the Alaska Sportsmen's Association and was an active participant in their small bore rifle instruction program in the Juneau School system. Above all Doctor William P. Blanton was devoted to his family and took great pride in the fine scholastic and athletic achievements of his children. The presence of 6 foot 4 inch Bill Blanton

with his cigar and his calm, gentlemanly demeanor will long be missed by all Juneau doctors as well as many others within the State and the Pacific Northwest.

William P. Blanton's medical colleagues throughout the State join in offering their condolences to his wife, Louise, and his children, Sandy, Susan and Tom.

JACK W. GIBSON, M.D.

HENRY WILDE, M.D.

### **STAN LEE EDWARD, M.D.**

The death of Dr. Stan Lee Edwards on Feb. 5, 1960, in a plane crash was a sad loss. He was en route home from a field trip down the Alaska Peninsula where he had been holding a series of field clinics for the Alaska Native Health Service. Stan was born February 15, 1931, in Kiowa, Kansas, and completed school in Kansas. He obtained his B.S. degree in Chemistry at Northwestern State College, Alva, Oklahoma.

He graduated from the Oklahoma University School of Medicine in 1956, after which he served a rotating internship at the University Hospital in Oklahoma City, and stayed on for one year as a resident in Internal Medicine at the University and Veterans Administration Hospitals in Oklahoma City, just prior to joining the Public Health Service and coming to Anchorage in July, 1958. In addition to his wife, Anna May, he is survived by his son, Kent Lee, by a previous marriage, and by his parents. His passing has left a sense of bereavement in many parts of Alaska where his brief visits won him many friends.

Ruth Coffin, M.D.

### **A. O. ROGERS**

The death of Mr. A. O. Rogers, in an aircraft accident in April of this year, has caused the medical profession in this state to realize the vital part the medical support groups play in the daily practice of medicine.

Mr. Rogers came to Alaska as an employee of the Health Dept. having had experience in brace

and prosthetic manufacture since 1938. In 1953, he began the development of his own shop, on a part-time basis, in a converted garage. In 1954, his skills became acutely needed, as a result of the poliomyelitis epidemic of that year, and he resigned from the Department of Health, to begin the permanent operation of the Alaska Orthopedic Appliance Company.

He soon became an integral part of the State-wide medical community, and traveled to our major cities, fitting and building braces and limbs for Alaskans. As chairman of the Crippled Children's program for the Shriners, he had more than a businessman's interest in the Children's program. His presence was requested and provided at local Anchorage and Fairbanks Orthopedic Clinics, and at the Poliomyelitis and Cerebral Palsy Clinics.

Harrassed physicians soon had physical aids for their patients, a service previously obtained for the non-native patient, only in the 'Stateside' area. Prior to his death, Mr. Rogers developed a modern shop, providing brace and limb construction and repair, and medical and surgical supplies, to the Alaskan community.

It is fitting, in a journal devoted to the profession, that we pause and give thanks to this man's pioneer work in his field, in Alaska, and realize that no memorial can be offered him half so fine, as the living adults and children who are working and walking today, because of his skill.

Mr. Rogers' wife, long an active partner in his work, will maintain his shop under his name. An employee qualified to do brace work is there and a prosthetist will be here soon to finish the limb work not completed, and arrangements are being made to provide this service again on a full-time basis.

The continuation of his work will please Mrs. Rogers, and will be vitally needed by all of us doing work with children, crippling diseases, and trauma. The work begun by Mr. Rogers was then, and is now, badly needed by physician and patient alike. His loss has caused us to appreciate this service as never before. Other fine men will come, and they will be welcome. But to this Orthopedic Appliance pioneer, we shall always be grateful.

W. J. MILLS, M.D.



# SUDDEN AND UNEXPECTED DEATH IN INFANCY

GERALD L. BRODY, M.D.\*

No more trying problem to both the clinician and the pathologist exists than in explaining why an infant, apparently for no reason whatsoever, is suddenly found dead in his crib. The eyes of the community are upon a medical profession which is expected to be omniscient; a reasonable explanation is expected. In addition, innuendoes of neglect or even open accusations of foul play by the parents are suggested. The old wives' tale of smothering by bedclothing is still held by the laity as well as by some segments of the medical profession. The parents can be relieved of a lifetime burden of doubt and self-beratement by the well-informed physician. It is imperative that this be done. Unfortunately, "Death from Smothering" is still being reported by physicians; these individuals are more likely to add to the parents' feelings of guilt than they are to lessen them. A number of mechanisms have been offered to explain these deaths and will be taken up in turn.

The usual history is that a two- to four-month-old infant, ostensibly previously completely well, has been fed and put to bed by his mother who noticed nothing amiss. Several hours later the child is found lying face down in his crib with vomitus on the bed sheets. There frequently is stool in the diapers. With careful questioning some of the cases will reveal a history of previous illness; the majority will not. Excepting those cases in which a gross, obvious explanation of death is found at necropsy such as a purulent meningitis, congenital heart lesion, or a purulent pneumonitis, the findings at necropsy may or may not be adequate as a cause of death depending upon one's interpretation.

A composite necropsy picture of series in the literature follows:

\*Department of Pathology, University of Michigan Medical Center, Ann Arbor, Michigan.



DR. BRODY

## GROSS FINDINGS

The nose, mouth, and upper airway may be filled with vomitus or with pink, frothy, pulmonary edema fluid, or neither of these may be present. "Cyanosis" is a frequent finding. Upon opening the chest the pleural and epicardial surfaces as well as those of the thymus often will be stippled with petechiae. The thymus will be found to vary enormously in weight for infants of any particular age. The lungs have been variously described as over-inflated, firm and subcrepitant, a mottled dark purple in color, and edematous. The larynx and trachea may be normal grossly or may show acute purulent inflammation. The heart often has a dilated right ventricle. The blood is fluid. There is extreme congestion of the brain and all abdominal viscera. The lymph nodes and spleen are hyperemic. A purulent mastoiditis or tonsillitis has been noted in some cases.

## MICROSCOPIC FINDINGS

The most generally accepted findings are inflammatory diseases somewhere in the respiratory tract. These include laryngitis, tracheitis, bronchitis, bronchiolitis, bronchopneumonia, interstitial pneumonia, and pulmonary congestion and edema—all of a greater or lesser degree, alone or in combination—e.g., laryngotracheobronchitis. Frequent significant findings include myocarditis, epicarditis, and endocarditis as well as thrombi in cerebral, meningeal, pulmonary, laryngeal, and other vessels. Hemorrhage into the adrenal glands and other organs is commonly reported. Purulent mastoiditis, tonsillitis, and sialadenitis have been found.

## DISCUSSION

The mere enumeration of the gross and microscopic necropsy findings in these cases is not enough to explain the phenomenon of sudden death. Actually, there is fairly good agreement in reports in the literature as to the necropsy findings; it is in the interpretation of these findings that differences of opinion arise. What to one pathologist represents an adequate cause of death to another may seem of no importance whatever. To explain these perplexing situations a variety of mechanisms has been suggested:

## DEATH BY SMOTHERING

Still commonly reported, certifications of death by smothering are based almost entirely upon circumstantial evidence. Because the child's head is covered by bedding, because he is often found lying face down, and because there has been no antecedent illness, the conclusion that smothering occurred is almost ineluctable. A necropsy is frequently not performed, and the case is closed. To negate this concept are the facts that the children's heads are more often than not uncovered; often they are found lying on their backs; necropsy findings in the majority of these cases reveal other, more objective reasons for death, and not a small proportion of these children are actually observed to die suddenly or even die in the parents' arms thus unequivocally excluding the slightest possibility of death by smothering. The position in which the child is found dead has made no difference in the necropsy findings and the same pathologic findings have been found by both Werne (1, 2) and Adelson

(3) in children found dead and those observed to die.

Here a word is in order to explain the so-called "findings of asphyxia" at necropsy. In the past, petechiae of the pleural, pericardial and thymic surfaces together with cyanosis of the face and fingernails, postmortem fluidity of the blood, and dilatation of the right cardiac ventricle have been regarded as virtually pathognomonic of death by asphyxia. It is now felt by Shapiro (4, 5), Gordon (6), Adelson (7) and other authoritative forensic pathologists that all these changes are non-specific and may be observed in death from many different causes. Gordon (6) observed the **postmortem** formation of petechiae and, indeed, Werne(1) noted that a child, the known victim of mechanical strangulation, had fewer petechiae than did those found dead in their cribs.

Woolley(8) in 1945 attempted to produce anoxemia and hypercapnia in infants by covering their heads with various types of bedding or by having them sleep with nose and mouth approximated to the mattress and pillow. All efforts short of covering their heads with a tightly fastened rubber sheet failed. All other bedding allowed free passage of gases, and even the smallest infant was able to roll enough from the face-down position to obtain an airway. He also points out that the median incidence of sudden death at three months of age is incongruous with death by suffocation. Surely it is logical that younger, weaker infants would show the highest incidence.

It must be admitted that in an occasional instance the circumstances are such that death by mechanical suffocation cannot be peremptorily dismissed although this must be very rare, indeed. Werne(1, 2), Bowden(9) and Woolley(8).

## DEATH BY ASPIRATION OF VOMITUS

The frequent finding of vomitus on the bedclothes around the face and in the mouth and respiratory tract has led to many diagnoses of death by aspiration. Stowens(10) noted vomitus in 92 of 200 cases. Both Adelson(3) and Werne(1) commented that aspiration might be agonal and not the cause of death per se. Furthermore Werne(2) found the same pathologic findings in infants who had aspirated and those who had not. Thus it seems reasonable to state that the presence of aspirated gastric content in the respiratory tree does not by itself mean that death was the direct result of the aspiration. Stowens(10)



explains the vomiting on a neurologic basis which will be discussed below.

## **THE THYMICO-LYMPHATIC STATE**

Formerly it was believed that the combination of a large thymus, small adrenal glands, and a hypoplastic cardiovascular system found in some cases of sudden death both in children and adults provided a cause of death with the thymus responsible either from mechanical obstruction of the trachea or from some other ill-defined way. Scrutiny of weights of thymus and adrenals in necropsies on children dying from all causes shows that these organs, and particularly the thymus, vary more in their weights than any other organ. Even with a very large thymus respiratory obstruction is rarely if ever produced. Through the years the onus has been shifted from the thymus to the adrenals, and adrenals insufficient to counter sudden stresses are now regarded as the prime factor by many Selye(11). It is known that adrenal insufficient humans are very liable to death following exposure to various stresses, but because of the fact that the adrenals of infants following death by violence, ostensibly perfectly well before their demise, are often smaller than those of infants found dead, it cannot be stated conclusively that these infants die of acute adrenal insufficiency. That such a possibility might exist in some cases must be admitted but is not proved in most instances.

## **DEATH FROM RESPIRATORY INFECTION**

It is in the assessment of the importance of respiratory infections that the sharpest divergence of opinion exists among those who have investigated this problem. That inflammation of greater or lesser severity is present somewhere in the respiratory tract of the majority of these infants is well established. Werne(1) found respiratory disease in all cases of infants found dead and thought that this was the cause of death. Bowden(9) likewise stated that respiratory disease was the most frequent cause of these sudden deaths. Stowens(10) noted pulmonary edema and emphysema in the majority, but found only tiny foci of inflammatory cells in various parts of the respiratory tract. Such foci can be found in many children dying suddenly of known causes and Stowens concluded that they were too minute to be considered the cause of death. Adelson(12)

described respiratory disease in 106 of 126 cases but questioned whether or not these were of sufficient magnitude to produce death. Rarely was there enough laryngeal edema to suggest death from mechanical obstruction of the airway.

## **MICROBIOLOGIC AND IMMUNOLOGIC STUDIES**

In a very small percentage of cases a frank septicemia exists. In the majority, however, bacteriologic and virologic studies have proved so fruitless that early attempts to isolate viruses were abandoned. Recently, however, Gold, et. al. (13) isolated Coxsackie A and poliomyelitis type 3 viruses from tissues of 9 of 50 of these children. They cited the work of Webster, Milnick, and Fenner who found that experimental animals inoculated with the viruses might die during the incubation period before any histologic changes were evident. A non-specific myocarditis has been found in a number of these children and is not inconsistent with a virus infection.

In an investigation of the plasma proteins in three cases Spain(14) found that all three infants were severely hypogammaglobulinemic. He pointed out that the age incidence of sudden death correspond closely with the time at which the infant no longer had the antibodies passively transferred from the mother and had begun to synthesize his own antibodies. He thought that the lesions seen were like those in non-immune animals and believed that the hypogammaglobulinemia was a factor in the deaths.

The exact opposite point of view was suggested by Valdes-Dapena(15), who described focal areas of fibrinoid necrosis of the larynx which to her resembled lesions of experimentally induced hypersensitivity. She offered anaphylaxis as an explanation and suggested that it might trigger a viscerovisceral reflex.

## **THE VISCERO-VISCERAL REFLEX**

Because in many of these cases the pathologic lesions appear to be almost trifling, it is difficult to believe that they by themselves are the cause of death. Rather, an explanation has been sought by which these small lesions set into motion a mechanism that results in the almost immediate death of the patient. One very attractive hypothesis is that of the viscerovisceral or vago-vagal reflex. Division of the vagi with stimulation of the distal ends of the nerves results in

bradycardia or even asystole. It is postulated that for some reason the vagal reflexes in these children are hyperactive. The respiratory lesion in a manner not yet understood sets off a vagal reflex which results in cardiac standstill and death. The same explanation has been invoked to explain the almost instantaneous death seen in pulmonary embolism. Stowens(10) stated that the emphysema found was the result of reflex bronchospasm and that the vomiting and incontinence were the result of a mass autonomic reflex. The pulmonary edema can be explained in the same way and has been produced experimentally(16). Obviously, it must be stated that this ill-defined reflex is only a hypothetical explanation. Until more is known about these neurophysiologic phenomena, we must admit that in many of these sudden deaths the ultimate reasons for death are not known.

### CONCLUSIONS

In explaining these sudden and unexpected deaths in infancy it is impossible to be dogmatic. Each of the various theories considered has attractive aspects; each leaves important questions unanswered. Only on one point can one express a forceful opinion: these infants do **not** die of mechanical suffocation except in the very rarest of circumstances. To conclude quickly on the basis of superficial evidence that such has occurred can only traumatize parents irreparably and retard the ultimate elucidation of the mechanisms involved.

That almost all of these infants will be found to have respiratory tract inflammation is established beyond reasonable doubt. That these diseases, whether they be bacterial or viral, are of sufficient magnitude by themselves to produce precipitate deaths seems doubtful. One is left in about the same position as in attempting to explain death from pulmonary embolus. The vago-vagal reflex theory is a most ingratiating one; unfortunately there is as yet no proof for this mechanism. Obviously, a fruitful path for research lies here. It is to be hoped that neurophysiologic research will unravel this enigma.

### SUMMARY

The practice of certifying that crib deaths in infants result from mechanical suffocation is to be deprecated. Autopsy series have shown conclusively that the majority, if not all, of these

infants harbor respiratory inflammatory diseases. The precise mode of action by which these diseases product sudden death has not yet been satisfactorily explained.

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# ANALYSIS OF THE OBSTETRICAL SERVICE AT KETCHIKAN GENERAL HOSPITAL

*PHYLLIS E. SMITH, M.D.*  
KETCHIKAN

Due to the interest of the Medical Staff of the Ketchikan General Hospital in evaluating its obstetrical service, a two-year study was undertaken. The main topics of interest were premature births, cesarean sections and neonatal deaths.

All obstetrical records from January 1, 1958, to January 1, 1960, were reviewed. The total number of births during this period was 589. Included in these were 25 breech deliveries and three sets of twins. There were no maternal deaths.

The data for premature births are shown in Table I. A great discrepancy was noted in classifying these births by the period of gestation or by a weight basis. When using the period of gestation (37 weeks or less), the number of premature babies was 50, but when the empirical weight basis of 5½ pounds or less was used, the number was 35. The percentage of prematures was 5.9 using the weight basis and 8.4 using the period of gestation criterion. When both weight and period of gestation were used, the percentage was 4.2. The data in Table I was obtained on a weight basis only.

As can be seen in Table I, eleven deaths occurred. Of those that died, at least six weighed less than 3 lb. 2 oz. Another point of interest is that five of the deaths involved babies of less than 27 weeks of gestation. Four stillborn births are included in Table I.

Of the 24 premature babies that lived, 16 weighed over 5 pounds. Surprisingly, one baby weighing 2 lb. 11 oz. and another weighing 2 lb. 6 oz. lived, while all five that weighed in the 3-pound range died. In the majority of the cases, no cause for prematurity was known. However, seven of the mothers were known to have had



DR. SMITH

one or more episodes of bleeding before delivery. From the data in Table I, it appears that, in some cases, too much sedation was given when a premature baby was expected. (Sedation given in an attempt to stop premature labor should be differentiated here from sedation given after labor is established.)

The data for cesarean sections are shown in Table II. There were 27 cesarean sections reported. This number 4.6% of the total number of births. On further breakdown, it was noted that 13 of these were first sections. Thus, only 2.2% of the total number of deliveries were first sections, which is well below the national average. As shown in Table II, 6 of the 13 first sections were performed because of bleeding. Of special interest in this group was a woman who had several previous miscarriages between three and

TABLE I  
PREMATURE BIRTHS\*

Period of Gestation, weeks	Weight lb. oz.		Condition of Baby	Remarks
12	1	4	Stillborn	Bleeding approximately 1 month after last normal menstrual Heavy bleeding 2 days before delivery,
22	1	4	Stillborn	Spontaneous breech delivery.
26½	2	3	Stillborn	Footling breech. Demerol 1 hour before delivery.
28	2	6	Good	Bleeding on admission. Demerol 4 hours before delivery.
28½	2	11	Good	Normal spontaneous delivery.
25	3	½	Died 4 hours after birth	Bleeding. Three injections Demerol, last one several hours before delivery.
28½	3	1	Isolet. Died 4th day	Dilaudid, the last injection 3 hr. 40 min. before delivery.
33-37	3	1	Died suddenly and unexpectedly on 6th day....	Section because of bleeding and previous section.
31	3	14	Isolet. Died 3rd day	Only sedation trilene in delivery room.
31	3	14	Died 2nd day	Normal spontaneous delivery.
34½	4	4	Good	Twins; one breech presentation. Membranes ruptured at home.
	4	10	Good	
33	4	10	Good, isolet	Normal spontaneous delivery.
40	4	11	Good	Normal spontaneous delivery.
35	4	13	Good	Twins. Normal spontaneous delivery.
	not weighed		Macerated stillborn	
34	4	15½	Good	Twins. Normal spontaneous delivery.
	5	7	Good	
36	5	1	Good	Membranes ruptured three weeks before delivery. Trilene with delivery.
38	5	1	Good	Normal spontaneous delivery.
35	5	2	Good	Normal spontaneous delivery.
31	5	5	Good	Spontaneous delivery of baby and placenta on surgery table.
36	5	5	Good	Normal spontaneous delivery.
30-34	5	6	Good	Normal spontaneous delivery.
33½	5	6	Poor	Bleeding. Section for abruptio placentae.
34	5	6	Good	Section because of bleeding.
37½	5	6	Good, club foot	Normal spontaneous delivery.
38	5	6	Good	Normal spontaneous delivery.
19-24	5	7	Isolet. Died 1st day	Bleeding. Demerol 1 hr. 50 min. before delivery. Ether in delivery room.
38	5	7	Good	Normal spontaneous delivery.
38½	5	7	Good	Normal spontaneous delivery.
39½	5	7	Good	Hypertensive.
40½	5	7	Good	Quinine, castor oil and pitocin (three injections of 3 minims, 1 hour apart).
40½	5	7	Good	Low forceps delivery.
30	not weighed		Isolet. Died 3rd day	Previous stillborn. Edema. Demerol given twice, last injection when 7 cm. dilated 30 minutes before delivery.

\*Less than 5 lb. 8 oz.

five months of pregnancy because of an incompetent cervix. With this pregnancy, she had had a Durfee "purse string" operation on the cervix when she was about 3½ months pregnant. Four of the section babies weighed less than 5½ pounds. The only death included in the 27 sections involved a 3 lb. 1 oz. premature baby. This section was performed at least a month before term because of severe bleeding and also because she had had a previous section.

Table III contains the data on all infant deaths involved in the 589 births. There were 16 deaths, which was 2.7% of the total number of births. Included in these deaths were six stillborns. Four of the deaths involved breech deliveries and two of these were stillborn. At least twelve of the deaths involved premature babies, either by weight or by period of gestation. Although no consistent cause of death could be determined, the majority appeared to be due to prematurity.



**TABLE II**  
**CESAREAN SECTIONS**

Period of Gestation, weeks	Weight lb. oz.		Condition of Baby	Reasons for Section
33-37	3	1	Died suddenly and unexpectedly on 6th day after birth .....	Bleeding and previous section.
40	5	0	Good .....	Bleeding twice.
33½	5	6	Poor at birth, but good on discharge .....	Abruptio placentae-bleeding on admission.
34	5	6	Good .....	Bleeding.
39	5	10	Delayed respiration .....	Previous section.
?	5	12	Good .....	Previous section.
33½	5	14	In isolet .....	Placenta previa.
39	6	5	Good .....	Previous section.
39	6	6	Good .....	Previous section.
40	7	0	Good .....	Previous section.
39	7	5	Good .....	Previous section.
39	7	5	Good .....	Previous section.
37½	7	9	Good .....	Bleeding and no progress. Also previous section.
40?	7	9	Oxygen and artificial respiration .....	Prolapsed cord and breech presentation.
?	7	11	Good .....	Previous section.
39	7	12	Good .....	Previous section.
40	8	2	Good .....	Bleeding on admission and funnel pelvis.
40	8	7	Good .....	Placenta previa.
42	8	9	Good .....	Contracted pelvis (two normal deliveries previously, largest 7 lb. 9 oz.)
39	8	10	Good .....	Previous section.
38	8	15	Good .....	Bleeding on admission. Placental separation. Previous section.
39	9	0	Good .....	Previous section.
38	9	1	Good .....	Purse string on cervix.
42	9	2	Delayed respiration .....	No progress after two days labor.
41½	10	0	Good .....	15-hour trial labor. Previous pregnancy 11 years.
33	not weighed		Good, hydrocephalic .....	Hydrocephalic.
40	not weighed		Good .....	Previous section.

**TABLE III**  
**INFANT DEATHS**

Period of Gestation, weeks	Weight lb. oz.		Time of Death	Possible Causes
12	1	4	Stillborn .....	Bleeding approximately 1 month after last normal menstrual period. Heavy bleeding 2 days before delivery.
22	1	4	Stillborn .....	Breech presentation.
26½	2	3	Stillborn .....	Footling breech. Demerol 1 hour before delivery.
25	3	½	4 hours after birth .....	Bleeding on admission.
28½	3	1	4th day .....	Dilaudid, the last injection 3 hr. 40 min. before delivery.
33-37	3	1	6th day, suddenly and unexpectedly .....	Section because of bleeding and previous section.
31	3	14	1st day .....	Only sedation was trilene in delivery room.
31	3	14	2nd day .....	Unknown.
19-24	5	7	1st day .....	Bleeding on admission. Demerol 1 hr. 50 min. before delivery. Ether in delivery room.
34	5	10	11 hours after birth .....	Cyanotic at birth. Whiff of ether during spontaneous delivery.
			1st day .....	Breech presentation. Artificial rupture of membranes 2½ hours before delivery.
41	7	12	Stillborn .....	Toxemia and bleeding on admission. Pitocin to induce labor.
30	not weighed		3rd day .....	Previous stillborn. Demerol when 7 cm. dilated (30 min. before delivery).
35	not weighed		Macerated stillborn .....	One of twins; other twin weighed 4 lb. 15 oz.
40½	not weighed		Stillborn .....	Toxemia. Pitocin to induce labor.
42	not weighed		5 hours after birth .....	Delayed respiration. Burns from hot and cold bath. Breech presentation.

There were seven babies born with gross malformations. All but one of these were term and spontaneous deliveries. There were three with club foot, one with multiple hemangioma and lymphocytic tumors, one with spina bifida and one with cleft palate. The other one was a 33 week premature baby which was delivered by cesarean section because of hydrocephalus.

All of these statistics compare favorably with national averages. This is especially gratifying, since all members of the Ketchikan General Hospital Staff are general practitioners and no obstetricians or other specialists are available locally for consultation.

No correlative data for the percentage of prematures, as defined in this report, could be found, but the 5.9% value is generally considered good. The infant death rate of 2.7% may be compared with the 26.5 per 1000 rate (2.6%) reported by Hess as the 1955 national average (1). The 4.6% value for all cesarean sections compares with an average value of 4.5% reported by Hall, et al. (2). His survey was taken from the records of

ten large northeastern U.S. hospitals for the period of 1950 through 1955. However, the 2.2% value for sections is significantly lower than 2.6% given in Hall's report.

## SUMMARY

Five-hundred eighty nine births, occurring at the Ketchikan General Hospital between January 1, 1958, and January 1, 1960, have been discussed. The percentage of prematures (less than 5½ lb.) was 5.9. Of the total births, 4.6% were by cesarean section, but only 2.2% were first sections. The infant death rate was 2.7%. There were no maternal deaths.

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# *Woman's Auxiliary News*

*A news column compiled by*

**Mrs. Vernon Cates**

## **PRESIDENT'S MESSAGE**

You cannot realize how surprised, amazed and distressed I was when my husband returned from the Alaska State Medical Association meeting with the news you had chosen me to be your President for the coming year. You cannot imagine how ill-prepared I feel myself to be because my knowledge of Auxiliary work is very meager. I shall try to do a good job but it depends upon all the auxiliary members in Alaska to make the year a success.

As yet I am not sure just who belongs to the Auxiliary, how many local groups have banded together to do a useful and self-satisfying job, and very little about the program that has been planned. It is certainly hoped that those of you who are active in Auxiliary functions will continue to do so. Mrs. Cates has done a good job in presenting the "News" column in Alaska Medicine and I am happy to have her continue to do so. The state journal is a wonderful medium for keeping us all acquainted with what is going on in auxiliary circles. Send your news of activities to Mrs. Cates and she will carry on from there.

In the meantime, if you have any suggestions, I shall be glad to have them. This is your organization and no officer or group of officers can succeed without your efforts.

Elsewhere in Alaska Medicine you will find copies of letters that the Medical Association has received from our representatives in the national capital. They will give you plenty to think about. There are many bills introduced each year that are important to the world of medicine. It behooves all of us to learn as much about these proposed laws as possible so we can help our husbands and their colleagues carry on the standards of organized medicine. An informed person can

answer many questions, and answers help form decisions. Let us help make those decisions favorable to the medical profession.

I plan a visit to Fairbanks and Anchorage with my husband in late May and I hope I can meet many of you and get your ideas and help. This can be a big year for our Auxiliary, but we must have more than just "wishful thinking."

Helene L. McBrayer.

## **MINUTES OF THE ANNUAL MEETING**

The 1959-60 annual meeting of the Woman's Auxilliary to the Alaska State Medical Association was called to order at 2 p.m., Thursday, February 18, 1960, Mrs. Francis Phillips presiding and Mrs. Charles St. John as secretary. Mrs. Charles Chenoweth opened the meeting with a prayer.

Dr. Louis M. Orr, President of the American Medical Association, was the guest speaker. He spoke to the group concerning the importance of combating the forces which are tending to socialize medicine, the Forand Bill being the most immediate threat. It was Dr. Orr's recommendation that the ways in which the Auxiliary members can accomplish most in this regard are by vigilance toward legislation proposed and by support of the American Medical Education Foundation. Dr. Orr then gave the members and guests a resume' of the ways in which the American Medical Education Foundation is working to combat the government support of medical education.

The minutes of the 1958-59 annual meeting were read and approved. The Treasurer's report for 1958-59 was read and adopted. A Treasurer's report to date for the 1959-60 year was read but not submitted for adoption as it would not be complete until the close of the annual meeting.

Mrs. James J. Fitzpatrick read the correspondence which had been received by the Auxiliary throughout the year. The Oklahoma State Medical Association Auxiliary honored the new State of Alaska as the theme of their annual meeting. The new March of Dimes, the National Foundation, wrote concerning the availability of annual scholarships in the fields of medicine, nursing, occupational therapy, physical therapy and social work. The American Medical Association issued an invitation for a representative to attend one of their nine regional conferences on the problems of the aging. This correspondence has remained with the President, Mrs. Phillips, who would have further details for those interested.

Mrs. Arthur Schaible, American Medical Education Foundation Chairman for the Alaska Auxiliary, reported that the Alaska Auxiliary is credited with donations of \$481.51 to the date of the meeting. Mrs. Schaible also announced that the Fairbanks members would be selling dollar-bill corsages and boutonnieres at the banquet on Friday evening, the proceeds to go to the A.M.E.F.

Mrs. R. Holmes Johnson, Chairman of the Community Service Committee, reported that she had received literature from the national auxiliary, on Visiting Homemaker Services, which she would distribute.

Mrs. Phillips spoke of the many hours of community service given by the individual members of the auxiliary throughout the state and listed some of the groups to which time has been given.

Mrs. Vernon A. Cates, auxiliary representative for Alaska Medicine, reported that other states would like to exchange reprints. Mrs. Cates asked that members let her know what they would like to see in the Auxiliary pages of Alaska Medicine and that they send her material of interest to other members, which can be used there.

Mrs. Michael F. Beirne, Civil Defense Committee Chairman, reported having corresponded with several physicians' wives during the year on the Civil Defense program. Mrs. Beirne distributed literature on The Home Preparedness Award program. This material contains shelter plans, supply lists, disaster procedure instructions and community planning. Anyone interested in receiving copies may get them from Mrs. Beirne or their local Civil Defense headquarters.

Mrs. Charles Chenoweth, Legislative Committee Chairman, reported that copies of the Forand Bill were distributed in December. Mrs. Chenoweth reminded the members that it is of the utmost importance that members write to their legislators concerning bills in which we are interested, and that it is no less important to write and thank the legislators when legislation that we favor is passed. Senate Bill No. 174, dealing with criminal responsibility of the mentally defective or mentally diseased was read. It was brought to the attention of the group that there is a new and possibly stronger bill than the Forand Bill which is being introduced by Senator Kennedy. Mrs. Wilson volunteered to obtain copies of this new bill for members. Mrs. Phillips reported that the Anchorage Auxiliary had written to the Alaska Senators and Congressmen. Mrs. James Lundquist reported that the Fairbanks Auxiliary had distributed pamphlets and had requested its members to write individually.

Mrs. Paul Haggland, Scholarship Committee Chairman, reported that the University of Alaska had had no applicant whom they felt they could honestly recommend this year. Mrs. Haggland recommended that \$250 which had been voted in two previous years and had been unused, be set aside as a permanent scholarship fund in case of future need, and that this scholarship fund be kept separate from the general funds of the Auxiliary. It was moved, seconded and carried that \$400 be set aside as a scholarship fund, with \$150 of it earmarked for use in the next year.

The Treasurer presented bills incurred by Mrs. Fitzpatrick for gifts taken to the Chicago Presidents' meeting and asked whether or not the membership desired the treasury to pay them. The motion was made, seconded and carried to pay the bills.

The President asked for a discussion of changes in the by-laws pertaining to officers. After a discussion, it was moved, seconded and carried that Article IV of the Constitution of this Auxiliary be amended to read:

"The officers of this auxiliary shall be a President, President-Elect, one or more Vice-Presidents, a Secretary and a Treasurer."

Mrs. Paul Haggland, Chairman of the Nominating Committee, moved that the election of officers be postponed until the time of the tea on the following day, Friday, Feb. 19, 1960. The motion was seconded, discussed and carried.



The President informed the Auxiliary of \$250 which the National Auxiliary had allowed the Hawaiian and Alaskan delegates to the Presidents' Meeting. She suggested the group consider sending delegates to national and state meetings.

The purpose of the registration fee was discussed. Mrs. Haggland explained that this fee had been adopted to cover convention expenses if needed by the hosting group. These had at times become fairly overwhelming when the convention took place at the same time that many physicians from other states were vacationing in Alaska, and accompanied by their wives. If not needed to cover expenses of the convention, it was then used to help build up the treasury. The President thanked all the committees which have served throughout the past year.

A motion was made, seconded and carried that the meeting be adjourned until 3 p.m. Friday, Feb. 19, 1960, at the home of Mrs. Asa Martin.

February 19, 1960

The meeting was called to order at 3 p.m. Friday, February 19, the President in the chair and the Secretary present.

Mrs. Paul Haggland gave the report of the Nominating Committee: President, Mrs. Benjamin E. McBrayer, Mt. Edgecumbe; President-Elect, Mrs. Joseph M. Ribar, Fairbanks; Vice-President, Mrs. Arthur N. Wilson, Ketchikan; Secretary, Mrs. William Charteris, Sitka; Treasurer, Mrs. R. Holmes Johnson, Kodiak.

The President called for nominations from the floor. There being none, nominations were closed. It was moved that the Secretary cast a unanimous ballot for the candidates as nominated by the committee. The motion was seconded and carried.

The motion was made, seconded and carried that this Auxiliary accept associate members, providing that these associate members shall neither vote nor be eligible to hold office.

It was also moved that dues for associate members should be \$3.00 per year, \$1.00 of this to be for the National Bulletin, \$1.00 to be for national dues, and \$1.00 to be for state dues. The motion was seconded and carried.

The 1959-60 annual meeting was adjourned.

Respectfully submitted,

MRS. CHARLES F. ST. JOHN,  
Secretary-Treasurer

## LOCAL AUXILIARY NEWS

### Fairbanks

Dinner meetings of the Fairbanks Auxiliary were held in March and April on the same evenings as the Medical Society meetings.

Election of an officer was held in March and Grace Schaible was elected President. This also includes the duties of Secretary and Treasurer. A special vote of thanks was recorded to outgoing President, Alice Lundquist, for her fine performance of the previous year. Auxiliary members who attended the Medical Convention in Anchorage also gave a summary of the activities of the convention.

The April dinner meeting was held in conjunction with that of the doctors and auxiliary members were invited to hear the guest speaker of the evening.

Plans are now being made to have an A.M.E.F. benefit barbecue picnic during the summer months when other Auxiliary activities are at a standstill.

Janet Bugh, wife of Dr. C. Wm. Bugh, is a new member of the Fairbanks Auxiliary and is already taking an active part in auxiliary work and projects.

### Juneau

Juneau does not have an organized Auxiliary but nevertheless the physicians wives are very active in community affairs and take a keen interest in their hospital guild. Mrs. C. C. Carter is the President of St. Ann's Hospital Guild for 1960.

Sister Superior Mary Luca of St. Ann's Hospital has planned a full schedule of events to commemorate National Hospital Week in May. On the evening of May 9, she will entertain the members of the medical staff and their wives at dinner. During the week she will also honor the advisory board and their wives at dinner. On Thursday noon, May 12, St. Ann's Hospital Guild has been invited to a buffet luncheon. On Saturday, May 14, St. Ann's Hospital Guild is planning their annual tea, at which time those attending will be shown throughout the hospital to enjoy the improvements and additional equipment which various local organizations have made possible.

### Anchorage

The March and April luncheon meetings of the Anchorage Auxiliary were busy and informative. The Lederle Symposium, to be held here in

June, was discussed and plans were formulated to entertain the medical wives at that time.

Capt. Carpenter, an officer in the Salvation Army, spoke to the group about the new maternity home to be opened here in the near future, of which she will be director.

A report was also given on the Kennedy Bill.

Officers were elected for the ensuing year and are as follows: President, Mrs. J. Ray Langdon; Vice-President, Mrs. Charles St. John; Recording Secretary, Mrs. Winthrop Fish; Corresponding Secretary, Mrs. Rodman Wilson; Treasurer, Mrs. Perry Mead; Board of Directors, Mrs. J. J. Fitzpatrick and Mrs. Vernon Cates.

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### AN ALASKAN PHYSICIAN'S WIFE

Dr. Colberg and I were engaged while I was a Junior in college and he was substitute teaching for the science teacher who had taken a year's leave of absence. We planned to marry as soon as I finished school, but meanwhile Dr. Colberg was asked by our mission board to replace the only doctor we had in the field who had just died of typhus. So in 1922 I finished college and then joined him in Peking, China, where he spent a year at the language school and served his internship at the Rockefeller Peking Union Medical College. This year at the language school and all the sight-seeing in the famous old city will always be treasured by us.

The following July we were married in a little stone church high in the mountains of Central China. I was carried to the church in a bamboo chair by the mountain coolies, and my bouquet was an armful of lilies, just like our Easter lilies, gathered from the hillsides about us. In August we went down to the plains of Honan, where we worked together for 15 years. My work was mostly in the way of teaching—a missionary wife tries to fit in wherever there is a need, so sometimes it was kindergarten or classes for Chinese women, and most frequently classes for high school students. Always there was a demand for English classes.

In 1939 Civil War forced us out of China and we spent this furlough in California. Those were happy years with our children all with us. Dr.

Colberg returned to China in 1942 and we hoped to follow shortly, but due to the disturbed situation there, women and children were not granted passports. The children and I moved to St. Paul where we would be closer to our families. This was a trying period because mail was so irregular and often we had no exchange of letters for months at a time. Three years later, the communists entered our field in Honan and all missionaries had to leave.

When Dr. Colberg joined us again, we spent the next three years in St. Paul before returning to China for the last time. We could not return to our original field, but worked with the Baptists in South China, in one of the most exotic spots in the world. Our four younger children attended the American School in Hong Kong. While in S. China I helped in the leprosy clinic twice a week and taught in the boys' school five days a week. At odd hours I taught English classes in our home.

In this city of Kityang there were no wheeled vehicles of any kind other than bicycles. Chinese professors in their long gowns rode to school barefooted on bicycles. Doctors made house calls by boat in the many canals that criss-crossed the city. When the tide was in they were fine. When it was out, the boatman would have to wade and push the boat through the slime. There was no electricity in Kityang so meetings and get-togethers were held when we had full moon. Those were romantic nights. Our one happy year here was ended with the sudden arrival of the communists.

We were warned about six o'clock one evening and we packed all night. We were on the boat at ten o'clock the next morning and headed down the river to Swatow, and on to Hong Kong to join our children. One nurse and doctor decided to stay on. They were imprisoned in their own homes for over a year before being released.

We then decided to come to Alaska thinking such a faraway place must have need for a doctor. We wondered though, if we would ever see our children here in Palmer. Little need for that worry. All seven have spent time with us here. All love Alaska, and so do we. We are sort of at the retiring end of it all now but still enjoy sharing in such local activities as Health Council, P.T.A., A.C.C.A. and church work. I think we will stay a while yet.

Ethel Colberg.



# *Muktuk Morsels*

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

## **GENERAL**

During the week preceding the third Lederle Post-Graduate Symposium in Anchorage, which is scheduled for June 11, Dr. Carl Badgley, Professor of Orthopedic Surgery, University of Michigan School of Medicine, and Dr. William Mills will hold an orthopedic clinic for crippled children in Kanakanak in cooperation with the Alaska Department of Health. Upon their return to Anchorage a clinic for patients with scoliosis is planned.

Dr. Bascom Johnson became Director of the Alaska Department of Health, Tuberculosis Control Section, late in February succeeding Dr. E. W. Gentles of the Seward Sanitarium in the post. Dr. Johnson came to Alaska from Iron Mountain, Michigan, where he had been manager of the Veterans Administration hospital for the past year. Previously he served for five years as Director of Professional Services at the Veterans Administration hospital in Sunmount, New York, where he also supervised a 534-bed tuberculosis hospital. Prior to that post he was Director of Professional Services at the Veterans Administration hospital in Denver for four years. He was a major in the U. S. Army Medical Corps during World War II, serving with the U. S. Public Health Service in the United States from 1941 to 1943, with the Army in the European theatre until 1946. Dr. Johnson received his M.D. from Yale University and his M.P.H. from the Johns Hopkins School of Public Health.

Preliminary plans for the third annual Cardiac Clinic, which is jointly sponsored by the Alaska Department of Health, the Alaska Heart Association, and the United States Public Health Service, are being formulated. This clinic is tentatively planned for September 18th to 25th, with Dr. Frank Gerbode, Associate Professor of Surgery; Dr. Herbert Hultgren, Associate Professor of Medicine; Dr. Saul Robinson, Associate

Clinical Professor of Pediatrics; and a radiologist, all from the Stanford University Medical School in San Francisco and Palo Alto, California, participating as consultants. Tentatively it is planned that these clinics will be held in Anchorage and possibly in Fairbanks and Sitka. As in the past, the main emphasis will be on patients with congenital and acquired heart lesions that might be benefitted by surgery, although persons presenting diagnostic problems will be seen as clinic time permits. Suitable patients may be referred by any physician by contacting the regional Alaska Department of Health representative.

## **LOCAL NEWS**

**SITKA:** Dr. Philip H. Moore recently attended the American Academy of Orthopedics in Chicago.

Dr. Kenneth Richardson of Mt. Edgecumb has been assigned to a Coast Guard weather observation ship for a three months' cruise in the Pacific somewhere beyond Hawaii.

**HAINES:** In appreciation of his service to the community for the past two years, Dr. Phillip H. Jones was presented with a V.W. Micro-Bus ambulance by the residents of Haines.

**JUNEAU:** A cardiac pacemaker and defibrillator for St. Ann's Hospital was purchased recently with funds donated by the Juneau Rotary Club from the profits of their Variety Show.

Dr. William Whitehead has been named the new Medical Director of the Alaska Cancer Society.

During mid-May, Drs. John Clements and J. W. Gibson and their wives are participating in the Juneau goodwill tour to Anchorage and Fairbanks.

**FAIRBANKS:** A post-graduate course on traumatic surgery was attended by Dr. Paul Haggland in May. The annual Sommer Memorial Lectures, a post-graduate course for general practitioners at the University of Oregon, was attended by Drs. Lawrence Dunlap and Joseph Ribar in April.

A new surgery is being constructed at the St. Joseph's Hospital, and the old wing which was condemned by the Fire Department in 1956, is being demolished.

Dr. Hugh Fate has returned for the summer from California to help direct his helicopter service. He will not be in active practice.

The Tanana Valley Clinic has been joined by Dr. Donald Tatum, an internist formerly with the Fairbanks Clinic. Dr. Charles Marrow, an internist, who until recently practiced in Bellingham, Washington, has rejoined the Fairbanks Clinic with which he was associated from 1954 to 1956.

Dr. Earl Boswell, an internist formerly with the Doctors' Medical and Surgical Clinic, is now associated with Dr. Henry Storrs.

**BETHEL:** Dr. Jean Persons with her husband, who is manager of the Bethel Northern Commercial Co. Store, and her year-old daughter, are visiting during May in the Southeastern United States.

**ANCHORAGE:** During the past few months Anchorage physicians have been to all parts of the world attending various medical meetings. The International College of Surgeons meeting in Rome was the destination of Dr. George Hale, who also visited Paris, Amsterdam and London. A post-graduate course in obstetrics and gynecology was attended by Dr. Nancy Sydnam in Pennsylvania. Dr. Frank Montmorency flew his stagger-wing Beechcraft to the Chicago American Urological Association sessions. An invitation to join the Harvey Cushing Society, an honorary group for Neuro-surgeons, was accepted by Dr. Perry Mead in San Francisco. The annual meet-

ing of the American College of Physicians in San Francisco was attended by internists Dr. Rodman Wilson, who became a Fellow of the American College of Physicians; Dr. Winthrop Fish; and Dr. Robert Whaley. The latter two physicians piloted themselves to Baja, California and skin diving following this meeting. Dr. Wilson returned to Alaska in preparation for his climb of Mt. McKinley. Mexico was also visited by Dr. William Caughran. Dr. Rudy Leong spent a brief visit in Portland, Oregon.

During their tour of duty as reserve Naval Officers, Drs. William Mills and Perry Mead visited the Navy Hospital in Bethesda, Maryland, and the National Institute of Health. Dr. Mills was granted a research grant by the Navy to continue his clinical investigation of the treatment and nature of frostbite.

The 1960 White House Conference on Children and Youth was attended by Dr. Helen Whaley along with 24 other Alaskan delegates, of whom nine were high school and college youth.

Dr. John Tower attended the National Foundation meeting in San Francisco and the University of Washington's post-graduate course on mental retardation.

Controlling the fish and game resources of the new state is the State Board of Fish and Game. Dr. Howard Romig was one of the eight members appointed by the governor. He has been a registered guide since 1947.

Beginning July 1st, Dr. Edwin Kraft, who has been associated with the Anchorage Medical and Surgical Clinic, will start his second year of a surgical residency in Harlan, Kentucky.

Two new medical buildings have opened in Anchorage in the past few months. One, which is occupied by Dr. Francis Phillips, Thoracic Surgeon, and Dr. James Fitzpatrick, Internist, is octagonal in shape. The Anchorage Medical and Surgical Clinic is occupying a very attractive new building which is illuminated completely by artificial lighting. It has a unique pattern of colored glass brick windows in a brick wall.



# Editorial Page . . .

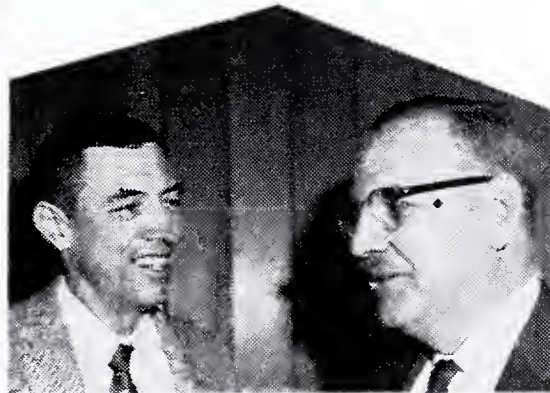
Elsewhere in this issue is an informative summary by Dr. Robert B. Wilkins, whose earlier position on the Territorial Board of Health enables him to write with considerable authority on the historical development of the Mental Health Program in Alaska. Dr. Wilkins' letter will be particularly interesting to those Alaskan physicians who have not been in close contact with the program. The rather workable plan submitted to the Board of Health by competent advisors described in this letter may be compared with our present situation some two years after Statehood.

It is difficult to understand, from this distance from the capital, much less to authoritatively re-

conflicts which have hampered effective mental and public health services. We should like however to encourage the medical and allied professions of the State to become acquainted with the problem, and to discuss it with lay individuals and groups when the opportunity arises.

It seems evident that only in response to vigorous public demand will an effective Mental Health Department be achieved; a department under stable qualified professional leadership, with appropriate authority, and adequate financial support. Public Health matters should be divorced from political squabbling.

ROBERT D. WHALEY, M.D.  
Associate Editor



Pictures taken at State Meeting, Feb. 1960.



# *Letters to the Editors . . .*

To The Editor:

As Secretary-Treasurer of the Alaska State Medical Association, and as a member of the former Board of the Alaska Department of Health, I have had more than the usual opportunity to become acquainted with Alaska's mental health problems, and the problems and activities of the governmental bodies which are involved in this. It is my feeling that the mental health program of the State of Alaska is deplorable, and the attention of the medical profession and the public should be focused on this fact. This letter is written in an attempt to do this.

Prior to the enactment of the Alaska Mental Health Bill by the United States Congress in 1956, the only psychiatric hospital available to the inhabitants of Alaska was Morningside Hospital in Portland, Oregon. Over the years many physicians and other individuals interested in the welfare of the mentally ill of Alaska felt that a change should be made. It was felt that hospitalizing patients 1,000 to 2,000 miles from their home, their friends and their relatives was not desirable, and that much would be gained by establishing a mental hospital in Alaska so that treatment of patients could be instituted more promptly, and so that rehabilitation of the patients into the community could be carried out with much less difficulty. Also, it was asserted by many that Morningside Hospital was inadequately staffed and was giving inferior care to Alaska's mentally ill (situations which have been rectified after two Congressional investigations). Many felt that locating a mental hospital in Alaska, where it would be constantly under observation by the medical profession and other interested persons, would insure that the highest quality operation of the hospital would prevail.

Among those who fought long and hard for the passage of the Alaska Mental Health Bill were Dr. Charles Anderson, the first chief of the Section of Mental Health of the Alaska Department of Health, and the Anchorage Medical Society, the Alaska Territorial Medical Association, the Anchorage Mental Health Association, and Delegate E. L. Bartlett.

With the implementation of the Alaska Mental Health Bill, and of the subsequent necessary

legislation passed by the Alaska Legislature, the Alaska mental health authority announced that its major projects would be the construction of a new mental hospital in Anchorage, and the establishment of a network of psychiatric clinics throughout Alaska. Despite the fact that the major project, the construction of the mental hospital, was to take place in Anchorage, the head office of the Section of Mental Health of the Alaska Department of Health was moved from Anchorage to Juneau with the reorganization of Alaska's government under Statehood.

At this stage of development, a cry was heard, not from the medical profession or from the personnel of the Alaska Department of Health, that all Alaskans should immediately be removed from Morningside Hospital to Alaska, despite the fact that Morningside was at the time a well staffed and well operated facility, and the fact that there were no facilities in Alaska to receive the 400 to 500 patients concerned. Almost simultaneously the community of Valdez announced that it had no doctor, a well-equipped small hospital (12 beds) and a number of abandoned apartment buildings in varying states of repair and delapidation, which could be purchased from their owners and converted into an institution to care for a number of the patients, more specifically, the "custodial and hopeless" cases.

The president of the Valdez Chamber of Commerce presented the "Valdez Plan" at a meeting of the Alaska Board of Health in Fairbanks in January, 1958, and the Board authorized a study to see if the plan was feasible. The study was carried out, and a report was submitted to the Board by Dr. John B. K. Smith, the head of the Section of Mental Health of the Alaska Department of Health. The report was not favorable to the Valdez idea and at its final meeting in Juneau in December, 1958, the Alaska Board of Health did not recommend or authorize any further consideration or action in connection with the "Valdez Plan."

Among the drawbacks of the Valdez Plan, Dr. Smith mentioned the following in his report:

1. "It appears to be an impractical situation to provide a psychiatrist, specialized in the skills of psychiatric treatment, to give services of



a general type of medicine, surgery and obstetrics." . . . "It would be necessary to supplement psychiatric supervision of patients in this hospital on a visiting basis by the psychiatrist in Anchorage" . . . and "This would entail interference with the normal and proper function of the Mental Hygiene Clinic in Anchorage."

2. "The total cost of repair and alteration work (on the apartments) has not been estimated by any one of the experts reporting on the property." . . . "Not less than \$300,000 (would be necessary) for conversion of the apartment buildings."
3. "Practically all of the staff would have to be recruited from the community of Valdez. Little is known . . . as to what standard of qualifications these people possess. Nothing is known of the possible recruitment other than what members of the community of Valdez have said would be available." . . . "If these personnel required for running the hospital could not be recruited from Valdez, this would present a very definite difficulty in trying to recruit personnel from outside to go to the isolated locale of the community of Valdez."
4. "Children require specialized pediatric supervision during their hospitalization and this would not be available in Valdez except by contracting with a pediatrician in Anchorage or Fairbanks to pay regular trips to Valdez." (No effort has ever been made to determine whether the pediatricians could or would serve in this capacity in such a distant and isolated community, away from their own practice.)
5. "This becomes a decided economic problem and would require quite an additional amount of funds to maintain and run the facilities."
6. "It is the writer's opinion that it would be much more economical, staff-wise and maintenance-wise to use the twenty beds in the Alaska Native Hospital in Anchorage where consulting services are available in the community, and where travelling would be limited for the psychiatrist." . . . "By utilizing these beds, the total number of patients referred to Morningside Hospital will be greatly reduced, and the number of cases discharged in the Morningside Hospital, stepped up."

Despite Dr. Smith's unfavorable report on the Valdez Plan, despite the Board of Health's decision not to support the plan, and despite the obvious conclusion from the wealth of experience of other states that it is unwise and often disastrous to establish mental hospitals in isolated areas, the first Alaska State Legislature unanimously passed legislation authorizing the activation of the Valdez Plan. This was done after private and unrecorded interviews with the Chief of the Section of Mental Health, and the Commissioner of Health, both of whom were quoted as saying they were in favor of the plan during the interviews. Neither has publicly denied this, but both have told many of their friends in the medical profession that they were misquoted, did not, and still do not support the idea. Unless they are willing to sacrifice their jobs, however, they must carry out the plan since it was ordered by the Legislature and the Governor.

In an atmosphere such as this, it is not surprising that there has not been smooth operation of the Section of Mental Health. Little has been made known to the public, or to the medical profession of Alaska, which helped give birth to the State mental health program, regarding the status of events in the Division of Mental Health (as it is now called under Statehood). The scrapping of the plan to establish a 20-bed acute psychiatric hospital unit at the Anchorage Alaska Native Hospital has been kept secret. The status of planning of the projected mental hospital in Anchorage has been a mystery, even to Dr. J. Ray Langdon, until recently the Division of Mental Health's head psychiatrist in Anchorage, at whose very doorsteps the hospital is to be built. Time only will tell what and how many other vital activities of the Division of Mental Health are being kept under cover.

Since the passage of the Alaska Mental Health Bill, Alaska State authorities have on no occasion sought the opinions, advice or consultation of the Alaska State Medical Association, or any of its component societies or mental health committees. Likewise, the mental health associations of Alaska, and other organizations interested in and dealing with the welfare of the mentally ill, including the licensed practicing psychiatrists of the State, have not been consulted. When opinions and advice, even though unsolicited, have been rendered by these groups and individuals, they have either been ignored or rejected as "completely ridiculous."

Unless the State of Alaska makes sudden and radical changes in the operation of its program for the care of the mentally ill, it will develop a deplorable and scandalous reputation throughout the nation as having the welfare of its people secondary to other considerations. The cost to the taxpayers in dollars will be excessive, and the cost in human misery and life will be inestimable.

Before this can be accomplished, the State legislators must first recognize that if Alaska is to have a good mental health program, it has to pay for it, and second, it must leave the formulation and operation of the program in the hands of qualified medical personnel. It does not seem unreasonable to hope that the latter group would avail itself of the opinions and advice of the practicing physicians of the State, and of recognized mental health authorities.

Very truly yours,

ROBERT B. WILKINS, M.D.

Secretary-Treasurer,

Alaska State Medical Association.

#### OFFICIAL STATE ASSOCIATION CORRESPONDENCE OF INTEREST

February 24, 1960

Dear Dr. Hale:

I wish to acknowledge your telegram expressing the opposition of the Alaska State Medical Association to the Forand bill, H.R. 4700, which would provide insurance against costs of hospital, nursing home and surgical service for persons eligible for old age and survivors' insurance benefits.

I appreciate having your views on this matter. However, I find, after studying the matter carefully, that I am unable to agree with your position.

It seems to me that it is necessary that our older citizens be provided with more assistance than is now available to them to meet crushing costs of hospital and nursing care. If this can be done by the doctors themselves or by private agencies, so much to the good.

Unfortunately, however, it seems that the private agencies are unable or unwilling to mobilize efforts necessary to remove from our citizens the paralyzing burden of medical costs attendant upon severe illness requiring hospitalization and surgical services.

The segment of the population which is least able to bear these costs is that group which Mr. Forand's bill would assist. It is the group of retired persons, of meager income, who are protected from destitution only by their eligibility for Social Security.

None of us wishes to be dependent on charity for assistance, including help in paying for medical care. Thus, it seems to me to be a wise plan to provide the means whereby we can insure ourselves against disastrous medical expense. It seems altogether sensible to me that this should be arranged by an amendment to the Social Security Act. By requiring the payment by employees and their employers of a slightly higher rate of Social Security tax, there will be gained some protection for those covered from either dependence on charity for the payment of medical expenses or from neglect of serious illness because of inability to pay the cost.

I hope I have clarified my reasons for supporting measures which would provide insurance against certain medical expenses for persons eligible for Social Security benefits.

I am grateful to you for informing me as to the position of the Alaska State Medical Association with respect to this legislation. I regret that I am unable to support your views.

With best wishes, I remain

Cordially yours,

/s/ ERNEST GRUENING

Dear Dr. Hale:

With reference to your telegram stating the position of the Alaska State Medical Association in support of H.R. 10, the Keogh-Jenkins Self-Employed Individuals' Retirement Act, I wish to assure you of my continued support of this legislation.

As you know, the bill has passed the House of Representatives, and I am hopeful that it will soon receive favorable action by the Senate.

With best wishes, I remain

Cordially yours,

/s/ ERNEST GRUENING

Dear George:

This will acknowledge receipt by wire of two resolutions passed in the Anchorage conference of the Alaska State Medical Association this month. With regard to the Keogh bill, you may



be interested to know that I am co-sponsor in the Senate of a similar measure. As you will note from the enclosed I placed your telegram regarding this measure in the record.

In connection with H.R. 4700 I welcome the resolution which will be helpful to me in my study of the measure, which I do not believe will receive action in this Congress.

With best wishes, I am

Sincerely yours,

/s/ E. L. BARTLETT

Dear Dr. Hale:

This is to thank you for your two telegrams of February 19, in regard to pending legislation. I am pleased to state with reference to the Jenkins-Keogh Bill, H.R. 10, that I have been giving full support to same. I have had many expressions from professional people in Alaska in favor of this legislation. The bill has already passed the House of Representatives and is in the hands of the Senate.

With regard to the Forand Bill, H.R. 4700, I have been receiving diverse opinions from Alaskans but will certainly have your views and thoughts in mind if, as, and when this legislation reaches the floor of the House. Hearings have been held, but the bill is controversial, may never get through the Rules Committee and may never reach the floor of the House for a vote this year.

With best wishes to you and the members of the Alaska State Medical Association, I am

Sincerely yours,

/s/ RALPH J. RIVERS,

Member of Congress

**MINUTES OF  
15TH ANNUAL MEETING  
ALASKA STATE MEDICAL ASSOCIATION**

**February 18, 19, 20, 1960**

**Anchorage, Alaska**

**Thursday, February 18, 1960**

President George E. Hale opened the meeting at 10 a.m. at Carpenter's Hall, Anchorage, Alaska.

The Honorable George Byer, Mayor of Anchorage, and Dr. Herbert L. Heller, Dean of Alaska Methodist University, welcomed the group to Anchorage.

Reports from the following representatives of various government agencies covering the activities of

their respective organizations during the past year were presented during the three-day course of the meetings:

1. Dr. Harry V. Gibson, Director, Division of Health, Alaska Department of Health and Welfare.

2. Dr. John B. K. Smith, Director, Division of Mental Health, Alaska Department of Health and Welfare.

3. Mr. Henry A. Harmon, Director, Division of Welfare, Alaska Department of Health and Welfare.

4. Dr. Grace E. Field, Chief Medical Officer of the Veterans Administration Regional Office in Alaska.

5. Dr. K. Kasuga, Area Medical Officer, Alaska Native Health Service, Anchorage, Alaska.

President Hale called for reading of the minutes of the 1959 convention and the Treasurer's report. With a unanimous vote of those present, the reading of the minutes was dispensed with and the minutes approved. The Treasurer's report was presented and unanimously approved.

The minutes of the meeting of the Council held February 17, 1960, were read and unanimously approved.

The President then made the following committee appointments:

Resolutions Committee: Dr. William J. Mills, Chairman; Drs. R. Holmes Johnson, Henry Storrs and Philip Moore.

Nominating Committee: Dr. William Whitehead, Chairman; Drs. Arthur Schaible, Louis Salazar and Milo Fritz.

Budget Committee: Dr. Benjamin E. McBrayer, Chairman; Drs. Peter J. Koeniger and Joseph Ribar.

Convention Site Committee: Dr. John I. Weston, Chairman; Drs. Henry Wilde, Louis Salazar and Joseph A. Tedesco.

Legislative Committee: Dr. William Whitehead, Chairman; Drs. Paul Haggland and Milo Fritz.

Committee for Study of Constitution and By-Laws: Dr. Peter J. Koeniger, Chairman; Drs. Philip Moore and Arthur Schaible.

A report of the Mental Health Committee was read by Dr. J. Ray Langdon, and discussion followed.

Dr. Henry Wilde announced that as the result of a meeting with the Director of the Alaska Office of Vocational Rehabilitation, he had a series of fees recommended for physicians who examine or care for Office of Vocational Rehabilitation beneficiaries. After considerable discussion of this proposal and Alaska and ASMA fee schedules in general, President Hale appointed a Fee Schedule Committee to consider the matter and formulate recommendations. The committee consisted of Dr. Philip Moore, Chairman; Drs. Royce Morgan and Arthur Schaible, with Dr. Robert B. Wilkins as ex-officio member.

The meeting was recessed and was followed by the afternoon scientific program.

**Friday, February 19, 1960**

After opening the meeting, President Hale called for reports of committees.

The report of the School Health Committee was read by Dr. Joseph Deisher, Chairman, and was unanimously approved.

Dr. Joseph Shelton, Chairman, presented the report of the Public Health Committee. This committee had

the Alaska Congressional Delegation stating the position of the Alaska State Medical Association to the Alaska Dental Association, and formulated a letter to the Alaskan Congressional Delegation stating the position of the Alaska State Medical Association to the effect that the Alaska Native Health Service hospitals should not receive non-native patients, except in emergencies. The action of the committee was unanimously approved.

Dr. C. E. Chenoweth, Chairman of the Committee on Aging, reported that there was no specific problem of the aging in Alaska, and that no definite action was recommended. He pointed out that the Governor had appointed a committee on aging, with Dr. Francis Phillips as the medical representative for Alaska. The report was unanimously approved.

The Budget Committee report was presented by Dr. McBrayer, Chairman, and was unanimously approved.

Dr. Wilde presented the report of the Convention Site Committee and advised that Fairbanks had been selected as the site for the 1962 meeting.

The report of the Nominating Committee was presented by Dr. Schaible, Chairman: For President-Elect, Dr. Joseph M. Ribar; for Vice-President, Dr. Jack W. Gibson; for Secretary-Treasurer, Dr. Robert B. Wilkins; for Councilors, Dr. A. N. Wilson (Ketchikan) and Dr. William P. Blanton (Juneau).

President Hale called for further nominations from the floor. Dr. James Lundquist was nominated for President-Elect. There being no further nominations, a vote was called for, and Dr. Joseph M. Ribar was elected President-Elect; Dr. Jack W. Gibson, Vice-President; Dr. Robert Wilkins, Secretary-Treasurer; and Drs. Arthur N. Wilson and William P. Blanton, Councilors.

Dr. Peter Koeniger, Chairman, presented the report of the Committee on Constitution and By-Laws, which included recommended changes in the By-Laws as follows:

That Article 5 be amended by substitution of the following:

#### ARTICLE 5—ELECTION OF OFFICERS

ARTICLE 5, Section 1: The offices of President-Elect, Vice-President and Secretary-Treasurer shall be filled by election at the annual session. The offices of Councilor vacated by expiration of their terms as specified in the Constitution shall also be filled by election at the annual session. Each candidate for Councilor must be a resident of the district for which he is nominated.

The offices of Delegate to the American Medical Association and Alternate Delegate, when vacated by expiration of their two-year term, shall also be filled by election at the annual session.

ARTICLE 5, Section 2: The President shall appoint a committee on nominations consisting of four (4) delegates, one from each councilor district. The committee on nominations shall report the result of its deliberations to the House of Delegates at the first business meeting of the annual session in the form of a ticket containing the name of one or more members for each of the offices to be filled at that annual session.

ARTICLE 5, Section 3: After the submission of the recommendations of the nominating committee, the President shall, at the first business meeting of the annual session, call for further nominations from the floor and announce the

time and place of elections, which shall not be less than 24 hours following such an announcement.

ARTICLE 5, Section 4: At the election, nominations shall again be called for from the floor prior to balloting.

ARTICLE 5, Section 5: All elections shall be by written ballot, and a majority of the votes cast shall be necessary to elect.

That Article 8, Section 1, shall be amended to read as follows: "Alaska Medicine—the incoming President shall, with the approval of the Council, appoint an editorial board of eight (8) members to provide for and superintend the publication of the official journal of the Association under the title ALASKA MEDICINE."

The report of the committee was unanimously approved. At the direction of President Hale, the proposed By-Law changes were laid on the table for action the following day.

President Hale called upon Dr. Mills, Chairman, for a report of the Resolutions Committee. Dr. Mills reported that 18 resolutions had been prepared for consideration by the body, and each member present was provided a copy. He announced that additional resolutions would be presented at the meeting the following day.

After being duly moved and seconded, the following resolutions were passed unanimously:

#### RESOLUTION I.

WHEREAS, Alaska presents unusual problems of health and sanitation because of its poor communication, severe terrain and extremes of climatic conditions, and

WHEREAS, the maintenance of proper public health and the practice of medicine demands the solution to unique situations, and

WHEREAS, it was clearly the intent of Congress to aid in the solution of these problems for the benefit of the people of the Territory of Alaska, now a State, as evidenced in the bill providing for the establishment of the Arctic Health Research Center in 1948 and leading to the establishment of such a center and its placement under the Department of Health, Education and Welfare, United States Public Health Service, and

WHEREAS, the work of said center has over the past 11 years been of great value in the fields of the study of infectious diseases peculiar to this area, the solution of certain pressing problems of water supply and waste disposal, the major advances in the control of the important scourge of tuberculosis, and major increases in our understanding of the relationship of the arctic human inhabitant to the insect, animal and plant life of the region, and

WHEREAS, the Center has been of direct aid to private physicians in their practice of medicine in the community in the resolution of certain peculiar problems for which proper help is otherwise difficult or impossible to obtain, and

WHEREAS, the work of the center has direct and important affects on the practice of private medicine within the State of Alaska, and

WHEREAS, because of mounting expenses and despite much supporting evidence presented previously to the Department of Health, Education and Welfare and to the Bureau of the Budget, the budgetary allotments have become inadequate to properly sustain the functions of the Arctic Health Research Center,



THEREFORE, since the Anchorage Medical Society has a legitimate interest in the continuing function of this agency, be it resolved that it recommend the Alaska State Medical Association ask its proper representatives in the Congress of the United States to take whatever action may be appropriate to increase the budgetary allowance for this agency so that its work may continue effectively and be expanded to meet the needs of our burgeoning population.

#### RESOLUTION II.

WHEREAS, it is adequately demonstrated that private medical care furnishes a more personal and acceptable form of physician-patient relationship, and

WHEREAS, medical care and benefits are more adequately and efficiently provided by private groups and individuals in civilian life, and

WHEREAS, the further "socialization" of the medical profession will provide only more expensive care and less efficient service, and

WHEREAS, The President of the United States has recognized in his annual budget message to Congress that "the spread of private insurance has played an important role in raising the level of health services for our rapidly expanding population," and

WHEREAS, the House of Representatives Bill, HR 4700, the Forand Bill, is only further evidence of government's intention to control medical care in this country.

NOW, THEREFORE, LET IT BE RESOLVED

THAT the Alaska State Medical Association be unalterably opposed to this Bill and notice of this opposition be sent the duly elected representatives of this State in the U. S. Congress.

#### RESOLUTION III.

WHEREAS, the Alaska State Medical Association believes that the "free choice of physician" is the right of every individual and one which he should be free to exercise as he chooses, and

WHEREAS, certain governmental agencies limit or deny "free choice of physician,"

NOW, THEREFORE, BE IT RESOLVED,

THAT all governmental agencies, including the Alaska Department of Public Welfare, the Alaska Department of Health, the Veterans Administration, Alaska Railroad, and United States Public Health Service, be strongly urged to provide this choice for their beneficiaries.

#### RESOLUTION IV.

WHEREAS, it is recognized that the care of service-incurred disability of the veteran of the armed forces is the responsibility of the United States Government through the Veterans Administration, and

WHEREAS, public and private agencies already exist for the care of the indigent patient, and

WHEREAS, the indigent veteran qualifies for care under these already existing agencies.

NOW, THEREFORE, BE IT RESOLVED

THAT the Veterans Administration of the United States Government limit its care program exclusively to veterans of the armed forces with service-connected disability.

#### RESOLUTION V.

WHEREAS, the Veterans Administration is expanding its program of hospital construction and maintenance at a cost of nearly \$1,000,000,000 per year, and

WHEREAS, 80-85% of veterans' care is for non-service incurred disability, and

WHEREAS, were this segment of veterans not the responsibility of the Veterans Administration such facilities would not be required, and

WHEREAS, the veteran with non-service incurred disability should not properly be the responsibility of the Veterans Administration any more than any other citizen of the U. S., and

WHEREAS, the indigent, whether veteran or not, is provided care in already existing private and public agencies, and

WHEREAS, the Veterans Administration is providing an unnecessary duplication of these facilities,

NOW, THEREFORE, BE IT RESOLVED

THAT the Veterans Administration dispend with its expansion program immediately.

#### RESOLUTION VI.

WHEREAS, there are government hospital facilities available that could be used for the care of veterans with service-connected disability other than the Veterans Administration hospitals, and

WHEREAS, these facilities are adequate to care for the total caseload of said veterans,

NOW, THEREFORE, BE IT RESOLVED,

THAT the Veterans Administration hospitals be turned over to the states in which they are located to be used as they see fit.

#### RESOLUTION VII.

WHEREAS, the Keogh-Jenkins Bill provides for needed tax relief for self-employed professional men who are eligible for Social Security,

NOW, THEREFORE, BE IT RESOLVED

THAT the Alaska State Medical Association recommend passage of the Bill.

#### RESOLUTION VIII.

WHEREAS, the Alaska State Medical Association at its annual convention held in Anchorage, February 18, 19 and 20, 1960, has been made aware of the introduction of Senate Bill No. 155, relating to the licensure and regulation of clinical laboratories and laboratory technologists, and

WHEREAS, the physicians of Alaska are only too well aware of the great difficulty in recruiting laboratory technicians and believe that this bill will only aggravate the situation, and

WHEREAS, there certainly is no clear need established for this type of State legislation, and

WHEREAS, the Alaska State Medical Association, along with the American Medical Association, considers the clinical laboratory a part of the practice of medicine, already licensed and regulated under the Medical Practice Act, and

WHEREAS, both the Hospital Association and the Alaska Society of Medical Technologists are also opposed to this Bill for similar reasons, and

WHEREAS, the Legislative Committee of the Anchorage Medical Society considered this Bill and deemed it undesirable for Alaska, its hospitals, its physicians and its people,

NOW, THEREFORE, BE IT RESOLVED

THAT the Alaska State Medical Association go on record as recommending that Senate Bill No. 155 by the State Legislature be withdrawn from consideration at this session of the Legislature.

BE IT FURTHER RESOLVED, THAT if the Division of Health feels that legislation along these lines may be needed in Alaska, that the Medical Association form a committee to study this problem with the Division of Health.







#### RESOLUTION IX.

WHEREAS, physicians receive frequent requests from various governmental agencies for clinical information concerning their beneficiaries, and

WHEREAS, the reporting of such information involves time and expense on behalf of the physician and/or his aides, and

WHEREAS, such time and expense is, in large part, unremunerated,

NOW, THEREFORE, BE IT RESOLVED

THAT any governmental agency requesting such information provide a minimum of Five Dollars for the service rendered.

#### RESOLUTION X.

WHEREAS, it is recognized that the general practitioner in the Alaskan community is the most essential member of our State medical program in private practice, and

WHEREAS, the good work provided this community by such physicians is often not recognized except by other members of the State Medical Association,

NOW, THEREFORE, BE IT RESOLVED

THAT the President of the Alaska State Medical Association appoint a committee representative of the entire State area to choose a physician to be honored as "Physician of the Year," and that such choice be acted upon in this session of the Alaska State Medical Association.

#### RESOLUTION XI.

WHEREAS, the medical care of children in Alaska is most important to the members of the ASMA as physicians and parents, and

WHEREAS, effort far beyond the normal amount has been expended in child care both in problems of health and legislation by Dr. Helen Whaley, and

WHEREAS, Dr. Whaley has given much of her time to the study and treatment of the mental and physical problems of the exceptional child of any medical kind, and

WHEREAS, she has found time still to engage actively in the educational and legislative programs for the betterment of her local and State society, and

WHEREAS, she has devoted considerable time to the Alaska native children in local hospitals and in field clinics throughout the State,

NOW, THEREFORE, BE IT RESOLVED

THAT Dr. Helen Whaley, Pediatrician, be commended for her outstanding contribution to the health and welfare of all Alaskan children.

#### RESOLUTION XII.

WHEREAS, Dr. George Hale and his staff have worked diligently and successfully in discharging the duties of their elected offices in the Alaska State Medical Association, and

WHEREAS, Dr. Hale and his staff have arranged an educational and rewarding annual meeting,

NOW, THEREFORE, BE IT RESOLVED

THAT Dr. Hale and his staff be extended the sincere thanks of the Alaska State Medical Association.

#### RESOLUTION XIII.

WHEREAS, the present Alaska Medical Practice Act has not been revised for a number of years, and

WHEREAS, in view of the many changes that have taken place in the recent years some inadequacies of this law are apparent,

NOW, THEREFORE, BE IT RESOLVED

THAT a Committee be appointed to investigate the need of revision and modernization of the present Alaska Medical Practice Act, and if such a need is found to exist, then to work with the Board of Medical Examiners in re-writing this Act, and request the Legislature to make it law.

#### RESOLUTION XIV

WHEREAS, the information obtained from a patient regarding his or her illness is, by custom and common sense, considered confidential information to be divulged only under certain well-defined circumstances, and

WHEREAS, this confidence relationship is the responsibility of not only the doctor, but also those persons and organizations subsidiary to him in the care of patients, and

WHEREAS, violations of this confidence relationship do occur from time to time, particularly among persons and organizations concerned with subsidiary care,

NOW, THEREFORE, BE IT RESOLVED

THAT, the President of the Alaska State Medical Association appoint a committee of three to investigate and resolve problems concerned with violations of the patient confidence relationship, and

BE IT FURTHER RESOLVED,

THAT said committee be instructed to draw up a list of rules defining clearly the responsibility of those involved in patient care in maintaining this relationship and distribute said rules to all persons concerned.

#### RESOLUTION XV.

WHEREAS, Alaska Medicine has accumulated medical journals on an exchange basis, and

WHEREAS, medical libraries in other states have agreed to send Alaska Medicine their extra journals for freight cost only, and

WHEREAS, medical texts and bound material have been sent Alaska Medicine in return for review of these volumes, and

WHEREAS, the Alaska Methodist University has agreed to arrange storage of these journals and will aid in the development of a medical library for the physicians of the Alaska State Medical Association, and

WHEREAS, a medical library in this State would be of distinct advantage to all in the medical and allied fields,

NOW, THEREFORE, BE IT RESOLVED

THAT the President of the Alaska State Medical Association appoint the Editorial Board and the staff of Alaska Medicine a committee to arrange such details for the development and maintenance of medical library facilities with the Alaska Methodist University.

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A committee to select the Physician of the Year was appointed by President Hale, with Dr. Moore as Chairman.

A 3-part resolution dealing with Krebiozen was tabled until the following day.

Dr. William Whitehead, Chairman of the Legislative Committee, submitted his report during the course of consideration of resolutions dealing with present legislation pending in the Alaska Legislature.

The meeting was recessed until the following morning.

The meeting was opened by President Hale, who called on Dr. Mills for additional resolutions from his committee. Eleven additional resolutions were presented, and each member present was provided a copy.

The three resolutions dealing with Krebiozen presented the previous day were brought up singly for consideration. The following resolution was passed:

#### RESOLUTION XVI.

WHEREAS, the advocates of Krebiozen have demanded through all publicity channels what they describe as a "fair test" of the drug, and

WHEREAS, there is currently existing a controversy concerning the efficacy of the drug, and

WHEREAS, the National Cancer Institute of the United States Public Health Service is willing to conduct a test to further evaluate Krebiozen in a manner acceptable to the scientific community,

NOW, THEREFORE, BE IT RESOLVED BY THE ALASKA STATE MEDICAL ASSOCIATION IN REGULAR MEETING ASSEMBLED:

1. That the evaluation of Krebiozen be done by scientists who are not committed in advance as to the value or lack of value of the material to be tested;

2. That this Association has confidence in the competence and integrity of the scientists who would be selected by the National Cancer Institute to make the proposed evaluation.

After being duly moved and seconded, the following additional resolutions were passed unanimously:

#### RESOLUTION VII.

WHEREAS in the face of the considerable difficulties encountered in the writing and publishing of a new medical journal peculiar to this area, the Editor and staff of ALASKA MEDICINE have produced a publication which has been received with wide approval and acclaim, and

WHEREAS, the publication is of great value in presenting the problems of medicine in the pioneer field of Alaska, and

WHEREAS, the publication is of great value to the Alaska State Medical Association as an official publication,

NOW, THEREFORE, BE IT RESOLVED

THAT the Editor-in-Chief, his editorial staff, the Editorial Board of ALASKA MEDICINE, and the Publisher, be highly commended for their successful pioneering work in establishing the first medical journal in the State of Alaska, and

BE IT FURTHER RESOLVED

THAT this publication be continued as the official journal of the Alaska State Medical Association.

#### RESOLUTION VIII.

WHEREAS, the health conditions in every category among the Native population of Alaska are inferior to those of the general population of the U.S.A., and

WHEREAS, there exists in the Alaska Department of Health and Welfare a mechanism for undertaking the remedy of this problem, and

WHEREAS, the Alaska Department of Health and Welfare is more or less under the control of the citizens of Alaska and not a medical bureaucracy of

the Federal Government as is now the case under the United States Public Health Service,

NOW, THEREFORE, BE IT RESOLVED,

THAT a committee be appointed to investigate the feasibility of the transfer of the Alaska Native Health Service to the Alaska Department of Health and Welfare, including fiscal aspects, as well as conferences with representatives of the Alaska Department of Health and Welfare, the United States Public Health Service, and the Alaska delegation to the U. S. Congress and that copies of this resolution be forwarded to all concerned.

#### RESOLUTION XIX

WHEREAS, foster home care for children and other beneficiaries of the United States Public Health Service, the Alaska Department of Health and Welfare and other health agencies is, in certain protracted medical and surgical illnesses, superior to prolonged hospitalization, and

WHEREAS, many foster parents have had children bestowed upon them and removed from their care in a capricious, impulsive and cruel manner by bureaucrats of the above mentioned agencies,

NOW, THEREFORE, BE IT RESOLVED

THAT the Alaska State Medical Association investigate this matter and secure written and signed policy from representatives of the Bureau of Indian Affairs, the United States Public Health Service, and the Alaska Department of Health and Welfare in order to safeguard the rights of foster children, foster parents and the three health agencies concerned, and

BE IT FURTHER RESOLVED

THAT copies of this resolution be forwarded to the health agencies named and the Alaska Delegation in the U. S. Congress.

#### RESOLUTION XX.

WHEREAS, it has become increasingly apparent in industry and education that the arbitrary retirement of personnel at a selected age has caused great loss of sorely needed talent and unwelcome desuetude to many able to continue working, and

WHEREAS, the correlation of chronological and physiological age is not medically sound, in recognition of which steamship captains, locomotive engineers and truck drivers pass yearly or bi-annual examinations to establish mental, emotional and physical fitness for their jobs,

NOW, THEREFORE, BE IT RESOLVED

THAT the Alaska State Medical Association notify the F.A.A. of its disagreement with the age rule for retirement, substituting instead six months' physical examinations of sufficient stringency and thoroughness to eliminate the unfit after age 60, and

BE IT FURTHER RESOLVED

THAT this Association go on record against arbitrary action on the part of the F.A.A. in its handling of any medical problems connected with aviation, and that copies of the resolution be sent to the Alaska delegation in the U. S. Congress, the Airline Pilot's Association, and to the Alaska Air Carrier's Association.

#### RESOLUTION XXI.

WHEREAS, dues of Associate members of the Alaska State Medical Association do not include subscriptions to ALASKA MEDICINE, and



WHEREAS, it is to the advantage of all members to be informed through ALASKA MEDICINE of announcement and information of interest and importance to them,

NOW, THEREFORE, BE IT RESOLVED

THAT, Associate members' dues be raised to Ten Dollars (\$10.00) to include subscriptions to ALASKA MEDICINE.

### RESOLUTION XXII.

WHEREAS, the Alaska State Medical Association Group Accident Policy has been in effect in Alaska for over two years, and

WHEREAS, the premiums collected far exceed the settlements afforded in the field of coverage,

NOW, THEREFORE, BE IT RESOLVED

THAT the Alaska State Medical Association negotiate for removal of the rider excluding coverage for pleasure flight and for a reduction in premium payments, if feasible.

President Hale called upon Dr. Moore, Chairman of the Fee Schedule Committee for their report, which was presented in the form of a resolution and which was passed unanimously.

### RESOLUTION XXIII.

WHEREAS a need exists among various government agencies requiring medical services, for a recommended fee schedule approved by the Alaska State Medical Association, and

WHEREAS to accomplish this distribution a publication of the fee schedule is required.

NOW, THEREFORE, BE IT RESOLVED BY THE ALASKA STATE MEDICAL ASSOCIATION IN REGULAR MEETING ASSEMBLED:

1. That the Secretary-Treasurer of the Alaska State Medical Association be and is hereby authorized and instructed to publish the recommended standard fee schedule as revised in 1959 and distribute copies to:
  - a. All members.
  - b. Administrative financial officers of all governmental agencies concerned.
  - c. Personnel in charge of all commissions, departments and offices requiring medical services in pursuance of their duties.
2. That publication of the recommended standard fee schedule be implemented within ninety days.
3. That the Secretary-Treasurer be and is hereby authorized to use funds of the Alaska State Medical Association to accomplish this purpose.
4. That the recommended fee schedule be re-appraised and adjusted as necessary by the Fee Schedule Committee of the Alaska State Medical Association on or before the 15th day of February of each year and that said revised schedule be submitted to all the above listed governmental agencies and individuals by April 1st of each year.
5. That a Fee Schedule Committee be established for the main purpose of re-examination, re-evaluation and making necessary adjustments to the fee schedule and implementing this resolution.
6. That the recommendations as contained in the Minutes of the Alaska State Medical Association Annual Meeting of 1959 at p. 11 regarding fee schedules be re-affirmed as follows:
  - (1) The adoption of the Fee Schedule recommended by the Veterans Administration or an improvement for fiscal year 1959-60.

(2) The adoption of, as an average, the fee schedule adopted in 1958 with changes—

- (a) Refraction of eyes, reduced from \$25.00 to \$20.00.
- (b) Certain pediatric items added.
- (c) Addition of all Medicare items not included.
- (d) Correction for certain typographical errors.

(3) For the Division of Welfare and Division of Public Health of the Alaska Department of Health and Welfare, Alaska Native Health Service, Office of Vocational Rehabilitation, and Fisherman's Fund, for work not done in a facility supplied by the agency, that the fee schedule above (No. 2) be used. If agency funds run out, it is recommended that ASMA members treat their clients gratis if true situation of indigency prevails.

(4) Within facilities provided by the various agencies, individual ASMA members may make contracts including any appropriate variation of this schedule.

7. That it is again recommended that the membership of the Alaska State Medical Association comply as closely as possible with the recommended standard fee schedule as above adopted.

In view of the fact that it was past 12:00 and all business of the meeting had not been concluded, it was voted to recess and resume the business meeting following the afternoon scientific session.

**Saturday, February 20, 1960—5:15 P. M.**

President Hale made the additional appointment of a Library Committee, consisting of Drs. Joseph Deisher and Rodman Wilson, with Dr. Wm. Maddock as Chairman.

Dr. Moore, Chairman of the Physician of the Year Committee announced that the committee's choice for this honor was Dr. Louis Salazar of Ketchikan and the recommendation of the committee was adopted unanimously.

Drs. George Adams, John W. Cashman, Herbert E. Griswold, John L. Haskins, James W. Miller, Louis M. Orr, Fount Richardson, John A. Shilling, Paul Younge, Julius L. Wilson and John King were unanimously voted to honorary membership in ASMA and the Secretary was instructed to prepare certificates for them.

The proposed amendments to the By-Laws which had been presented the previous day were again brought up for consideration, and the recommended changes as heretofore described were passed unanimously.

The following suggested change to the By-Laws was tabled until the next meeting.

Article 1, Section 4(a): (Addition of the following): "That the applicant must derive at least 50% of his income from the private practice of medicine. Nothing in this requirement shall, per se, deny active membership to a physician who has previously and is now enjoying the advantages of active membership."

There being no further business to come before the meeting, the President adjourned the meeting at 5:30 p.m.

# *News of Government Services*

## **UNITED STATES PUBLIC HEALTH SERVICE**

During the coming year, the U. S. Public Health Service will be able to achieve greater field health coverage than at any time in the past, in order to further promote their program of preventive medicine among the native population. There will be two physicians at each of the field hospitals with three at Bethel. This will enable one physician to make periodic visits to the surrounding villages at regular frequent intervals. In addition a full-time field health clinic is being established at Fort Yukon which has had no physician since Dr. Burns Jones, an Episcopalian missionary physician, left over a year ago. This clinic will have the services of a physician, dentist and clinic nurse and will also cover the upper Yukon River villages. It is the first of several field clinics planned for larger remote native villages not serviced by a hospital.

Dr. Ruth Coffin, an internist, who has served as the chief of medicine at the Anchorage hospital for the past three years, will hold field health clinics on an itinerant basis in many of the villages of the Aleutian chain, Prince William Sound, and the Iliamna, Tyonek and Nondalton areas. These communities have had no regular medical service in the past, but have depended upon air transportation into the Anchorage hospital for severe emergencies.

From June through October 15th, Dr. William James, who is presently on the EENT service at the Anchorage hospital, will serve as the physi-

cian on the U. S. Coast Guard ice-breaker Northwind. The ship will tour the coast of Alaska including the entire Aleutian Chain and St. Lawrence Island. Medical, dental and legal service will be provided to the many isolated villages between Southeastern Alaska and Point Barrow.

A five-week T and A clinic will be held in Bethel during May and June. This is a joint venture of the U. S. Public Health Service and the Alaska Department of Health.

During the late spring and early summer, Dr. Joseph Shelton, Anchorage ophthalmology consultant, has held clinics at Bethel, Kanakanak, Tanana and Kotzebue.

Dr. E. Stewart Rabeau, who has supervised the field health hospital program for the past several years, will enter the School of Public Health at the University of California in Berkeley this September to obtain his master's degree. In July, Dr. Tom West, the chief of surgery for the past three years, will begin doing cancer research at the National Institute of Health in Bethesda. Dr. Dunn left for Chicago via the Pacific coast in May to begin a four-year ENT residency. Dr. Robert Fraser, the present MOC at Kotzebue hospital, begins his second year of internal medicine residency in Pennsylvania this summer. Transfers within Alaska will bring Dr. George Walters from Point Barrow to Anchorage and send Dr. John Hepler of Tanana to Kanakanak.



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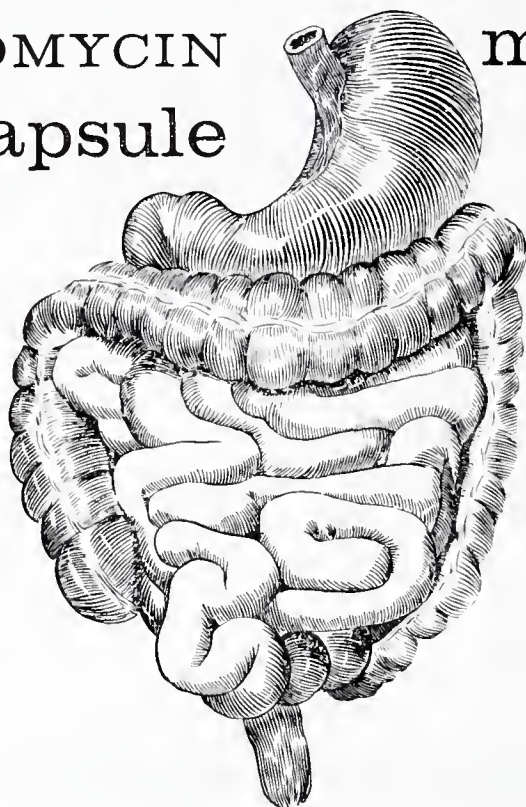
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1. Finland, M.; Hirsch, H. A., and Kunin, C. M.: Observations on Demethylchlortetracycline. Presented at Seventh Annual Antibiotics Symposium, Washington, D. C., November 5, 1959. 2. Hirsch, H. A.; Kunin, C. M., and Finland, M.: Demethylchlortetracycline—A New and More Stable Tetracycline Antibiotic That Yields Greater and More Sustained Antibacterial Activity. München. med. Wchnschr. To be published. 3. Lichter, E. A., and Sobel, S.: The Distribution of Oral Demethylchlortetracycline in Healthy Volunteers and in Patients Under Treatment for Various Infections. To be published.

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# Alaska Medicine

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SEPTEMBER, 1960

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### PUBLISHING CONSULTANT

Herb Rhodes

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Business Office—742 K Street

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# INTRACRANIAL TUBERCULOMAS — Experience with the Alaska Native Health Service Anchorage: 1954-59

*PERRY A. MEAD, M.D.*

ANCHORAGE

The incidence of intracranial tuberculomata has markedly decreased in the past decade. However, this infectious granuloma is a surprisingly common intracranial disorder and is seemingly endemic in many of the Alaskan natives (Indians and Eskimos). This is readily understood when one considers that Alaska has more tuberculosis disease percentage-wise than the older States. Tuberculomas at one time (1889) were as frequent as primary neoplasms of the brain in children and comprised 13.6 percent of all adult brain tumors. In 1927 the incidence had fallen to 1.4 percent in the U. S.

Within recent times the incidence has remained high in Chile (15.9% in 1951), Spain (10% in 1948-50 by Obrador<sup>1</sup>), Portugal (6% in 1949), Ireland (5% in 1948), China (5.3% in 1958), and Alaskan Natives (35% 1954-59). The discovery of calcified cerebral tuberculomas amongst the Alaskan natives has occurred often by accident during the routine radiologic survey of a jaw-neck lesion, for example, that also included a portion of the skull. In two cases (Table I, Cases No. 1 and 2) mandibular x-rays revealed the surprising coincidental finding of a giant intracranial calcific mass (Figs. 1, 2, 3, and 4). Of the patients herein described one-half were known to have or have had extracranial tuberculosis. In the other half, signs of old healed primary tuberculous complexes were found on their routine chest x-rays. Other tuberculosis lesions had been treated surgically and/or with streptomycin, PAS, and INH within recent years or months. Moreover, before and after surgical removal of the tuberculomata the anti-tubercular drugs were used routinely. This approach has now reduced the complication of tuberculous meningitis to such a degree that neurosurgical treatment gives extremely gratifying results. In fact, we have been fortunate in a small series of six operated cases to have had no mortality and minimal morbidity, such as an occasional post-opera-



DR. MEAD

tive convulsion (Case No. 3). The experience of other neurosurgeons, as mentioned by Bailey<sup>2</sup>, in the pre-streptomycin era was on the whole disappointing, due to a mortality of over fifty percent in some series. Tuberculous meningitis was feared so much that many surgeons performed simple decompressive craniectomies rather than risk dissemination of the tubercle bacilli by an extensive intracranial extirpation of an infectious granuloma.

In Alaska with its unique problems of native health the incidence of intracranial non-surgical tuberculosis parallels, or is greater than surgical tuberculous intracranial problems. This is mentioned because there has been a number of cases in which the calcific lesion was too centrally placed in the brain for surgical removal (Case No. 6). This is in accord with Arseni<sup>3</sup> who states that tuberculous meningitis more frequently follows attempts at surgical removal of tuberculomata adherent to the dura mater or adjacent to the ventricular walls than elsewhere in the brain. In the present series are included some instances of multiple calcific masses, in known

TABLE I

OPERATIVE PROCEDURES AND RESULTS  
IN THIS SERIES

Case No.	Age	Sex	Type of Operation	Anti-Tuberculous Drug Therapy	Years Post-Operative	End Result
1. P.M.	18	M	Right occipital osteoplastic craniotomy	Yes	3	Asymptomatic
2. V.R.	20	M	Right frontal osteoplastic craniotomy	No	3	Seizures if fails to take drugs
3. A.C.	42	M	Ventriculogram & L. Parietal osteoplastic craniotomy	Yes	4	One possible grand mal seizure
4. T.T.	22	M	Left frontal osteoplastic craniotomy	Yes	3	Asymptomatic
5. H.F.	24	M	Right temporal Crown-Trephine craniotomy	No	3	Asymptomatic
6. J.C.	20	M	Operation deferred (peri-ventricular asymptomatic calcified mass not operable without risk)	No	----	----
7. J.H.	62	F	Left frontal osteoplastic craniotomy	No	2	Asymptomatic



Fig. 1

*Case 1; Occipital calcific lesion,  
right lateral view.*

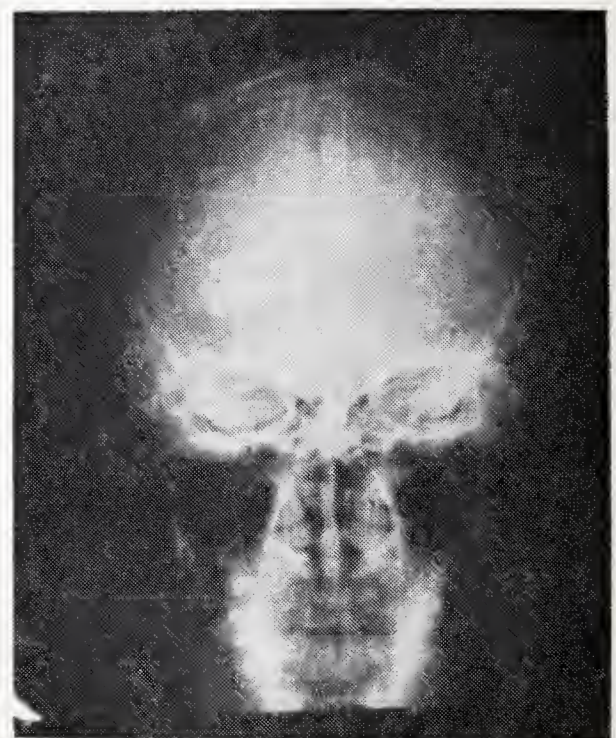


Fig. 2

*Case 1; A-P view*



tuberculous patients, that allowed only the surgical excision of what was thought to be the most offending lesion that could be removed safely. According to reports from various field medical officers throughout Alaska other cases are known to exist from random skull x-rays seen with calcific intracranial lesions without the patients having symptoms. In other cases the presence of coexistent active extracranial tuberculous lesions has prevented neurosurgical treatment of the intracranial tuberculoma; yet did not seem to cause more than a month's delay in the decision to perform cranial surgery.

The clues which led to the discovery of intracranial calcific tuberculomas in this representative group of seven patients were as follows:

1. Masses in the neck or mandible: Scrofulous lesions in two (Cases No. 1 and 3) and large sebaceous cyst in one (Case No. 2) requiring x-rays that unexpectedly revealed a portion of the intracranial calcific lesion.
2. Uncontrolled focal motor seizures and routine skull x-rays revealing the calcific mass in four (Cases 4-7).

In only one of the surveyed patients, both surgical and non-surgical, was there noted a calcific mass in the posterior fossa. Cho Yi-Ch'Eng<sup>4</sup>

agrees with most authors on this subject in reporting a higher incidence of infratentorial than supratentorial tuberculomata. It is of interest that in a recent series of ten cases in Panama by Gonzales-Revilla<sup>5</sup>, no calcific lesion was noted. In this regard, the patient with the largest (Case No. 3, Figs. 5-10) in this series had no calcification in his giant tuberculoma. Most series of cases have lesions in the posterior fossa as did those described by Descuns<sup>6</sup>. The microscopic pathology of calcified intracranial tuberculoma has been described by Evans<sup>7</sup> to include true ossification (cancellous bone formation). This was noted in four of the five calcified tuberculomas removed in this group (Table II). Pendergrass<sup>8</sup> has noted a low incidence of calcified tuberculomas in a general survey of the radiological signs of these lesions. The serrated lace-like configuration of the irregular margins of these masses as described by Pendergrass corroborates the x-ray finding of the calcareous lesions noted on the routine skull x-rays made in this series. However, these lesions have not been located adjacent or adherent to the dura mater, as seen in other series, but the greatest number have been sub-



**Fig. 3**

*Case 2: Lateral view*



**Fig. 4**

*Case 2: A-P view*





Fig. 5

Case 3: A-P Ventriculogram.  
Lesion on left.



Fig. 6

Case 3: P-A Ventriculogram

cortical as one can see by noting the accompanying skull x-ray photographs (Figs. 1 - 4).

### CASE REPORTS

**Case 1. Asymptomatic Calcified Tuberculoma**—P. M., an 18-year-old Indian was admitted to the hospital April 16, 1957, because of a mass in the right neck of one month duration. Anti-tuberculous drugs were given because of a presumptive diagnosis of tuberculous adenitis. The neck lesion subsided in size after treatment of about six weeks.

A lateral x-ray of the cervical spine for evaluation of the neck mass included a portion of the skull on the film which revealed a large calcific mass in the occipital region. Routine skull x-rays (Figs. 1 and 2) were obtained and showed the occipital calcified mass to be on the same (right) side as the neck lesion. Chest x-rays showed evidence of old healed pulmonary tuberculosis.

Decision for removal of the right occipital mass was made after the patient had a regression of his probable tuberculous adenitis from anti-tuberculous drug therapy. Hence, on July 12, 1957, a right osteoplastic craniotomy was per-

formed and a subcortically placed calcific mass measuring 3x5x7 cm. was removed *in toto*. Moderate difficulty was encountered during the exposure of this lesion from bleeding via the transverse sinus, otherwise enucleation of the neoplasm was relatively easy to dissect away from the surrounding normal appearing brain.

TABLE II  
PATHOLOGIC CHARACTERISTICS

Case No.	Calcified	Surgically Removable	Ossified	Caseation
1. P.M.	†	Yes	0	0
2. V.R.	†	Yes	†	0
3. A.C.	0	Yes	0	†
4. T.T.	†	Yes	†	0
5. H.F.	†	Yes	†	0
6. P.C.	† on x-ray	No	?	?
7. J.H.	†	Yes	†	0

The patient's post-operative course was uncomplicated and no visual field defect was detectable by perimetric examination. Pathologic microscopic examination revealed a non-ossified calcific tuberculoma. He was continued on anti-





Fig. 7

Case 3: Preoperative  
ventriculogram

tuberculous drugs and returned to his village August 7, 1957, on the 26th post-operative day.

**Comment**—This case was presented to show how active extracranial tuberculous disease required treatment before it was thought safe to remove an apparently asymptomatic intracranial tuberculoma. The election of operative removal of this “silent” lesion was based on the fact that the brain lesion may be slowly enlarging because of the active tuberculous adenitis. With this possibility operation had best be performed while the patient was at a general hospital where neurosurgical care could be given rather than wait until the lesion is causing pressure symptoms or other complications, for example, while he was at his remote village.

**Case 2. Symptomatic Calcified Tuberculoma.** V. R., a 20-year-old Indian was admitted to the hospital November 23, 1956, because of a mass in the right submandibular region of his neck of four months duration. He had been admitted previously for left focal motor and grand mal convulsions of eleven years duration, but there had never been a so-called convulsive disorder work-up to include skull x-rays. Mandibular x-rays on November 21, 1956, showed no jaw lesion but did accidentally show a right frontoparietal intracranial calcific mass measuring 2.5x3.5x6 cm. Skull x-rays were obtained November 23, 1956

(Figs. 3 and 4) to better evaluate the lesion. Chest x-ray November 23, 1956, showed no signs of tuberculous activity.

It was later proved that the submandibular lesion was a large sebaceous cyst and not a large caseous tuberculous mass. Therefore, because of his seizure problem not being adequately controlled in the hospital on ordinary doses of Dilantin and phenobarbital, a right frontal osteoplastic craniotomy was performed January 18, 1957, and the subcortically placed calcific mass was removed in one piece. Post-operative anti-convulsant therapy was given and he remained seizure-free until he was dismissed February 4, 1957. Pre-operative spasticity of the left hand was modified to a flaccidity and paresis that gradually improved. His spastic left hemiparetic gait was unaltered.

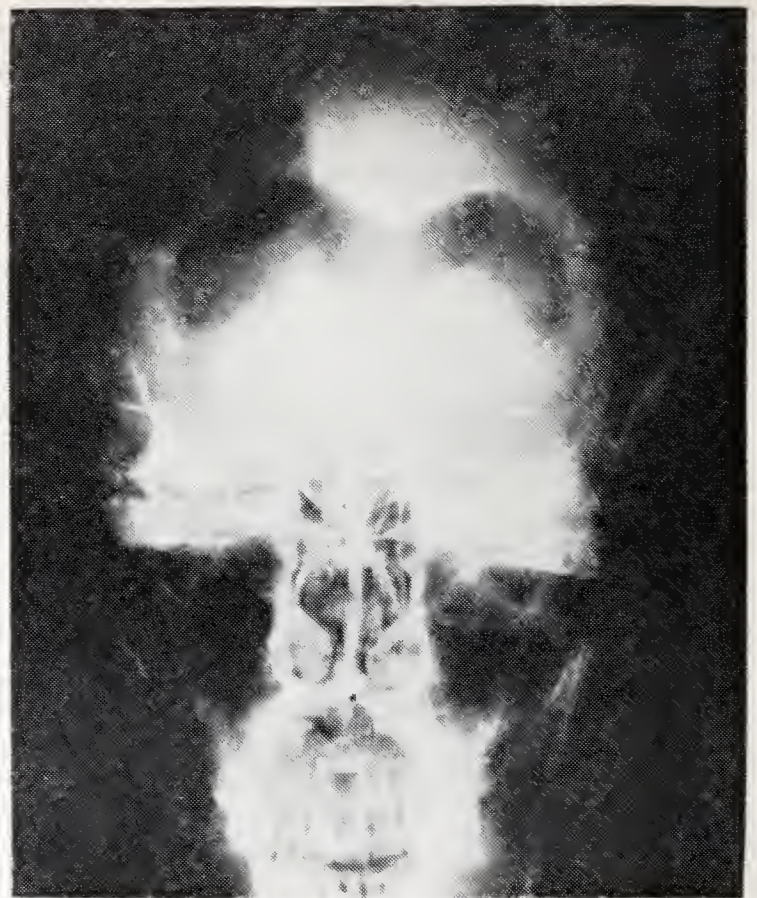
Pathologic examination revealed the lesion to have characteristics of an ossified tuberculoma. He has done well regarding his problem with seizures unless he forgets to take his Dilantin and phenobarbital or consumes alcoholic beverages that precipitates seizures prompting short-term hospitalizations.

**Comment**—This is another case where the accidental finding of the source of a chronic neurological disorder occurred by evaluating the patient for another problem (neck lesion). It is likely that more patients exist of this type in Alaska when one considers how such lesions can be overlooked, that is by failure to get routine skull x-rays on convulsive disorder patients.

**Case 3. Symptomatic Non-Calcified Tuberculoma.** A. C., a 42-year-old Indian was transferred from a village mission hospital on October 31, 1955. He had experienced bi-frontal headaches for two months accompanied by weight loss plus early morning nausea and vomiting. There was some impairment of vision in the right half of both visual fields subjectively and a right homonymous hemianopsia was found on confrontation testing. A history of nodes excised bilaterally from the anterior and posterior cervical chains six years earlier was surmised to have been for tuberculous adenitis. No papilledema existed. However, retinal vein distention was noted O. D. plus loss of the physiologic cupping of the optic nerve, O. S.

Skull x-rays revealed marked thinning of the posterior clinoid processes. Chest x-ray showed





Figures 8 & 9

*Case 3: Postoperative ventriculograms*

no sign of tuberculosis. Spinal fluid examination was deferred. On November 8, 1955, a ventriculogram (Figs. 5-7) revealed signs of a large left parietal expanding lesion. This procedure was followed by an osteoplastic left parietal craniotomy and subcortical excision of a relatively avascular ovoid mass measuring 5x6x8 cm. Pathologic examination of the lesion revealed a caseous granuloma with giant-cell formations in keeping with a tuberculoma.

The patient was given Dihydrostreptomycin, INH, and PAS during his post-operative course. He had no complications and seemed to have less and less right homonymous hemianopsia. He was returned to his village to resume operation of his small general store on January 10, 1956.

The patient was returned April 6, 1956, because of supposed bizarre behavior that was probably confused by his fellow villagers' overconcern for his post-operative welfare. Also, it was thought that the patient might seem different to those uninformed about his right homonymous visual field defect. He was returned to his village and readmitted September 20, 1956, because of a

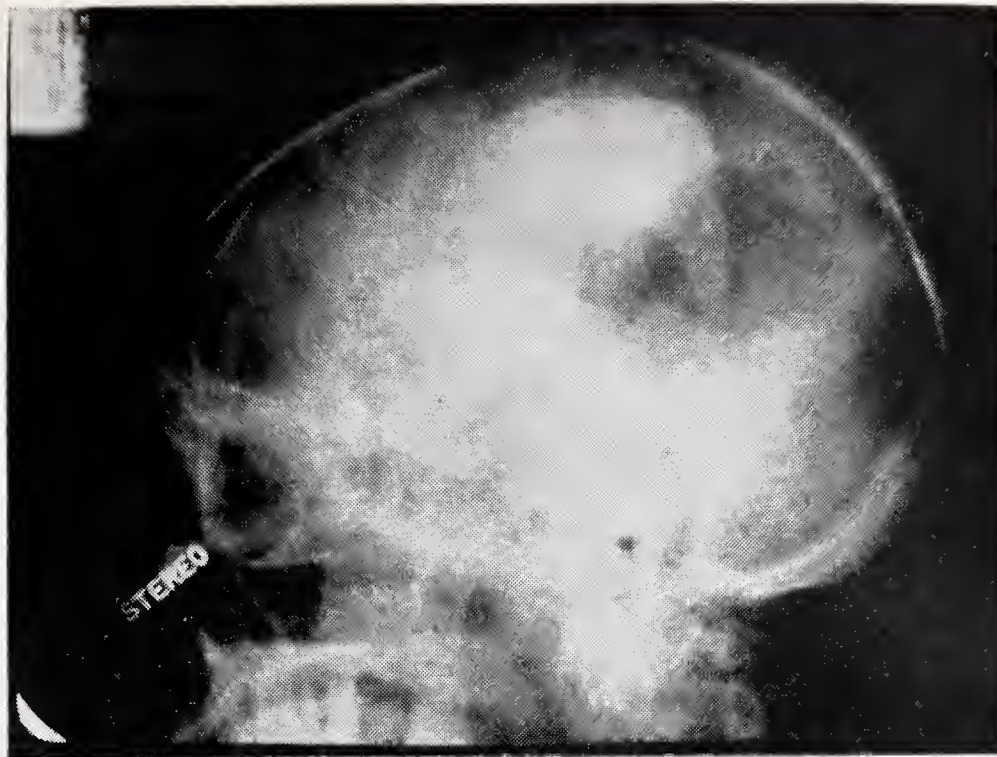
grand mal seizure with post-ictal disorientation and confusion on report by the mission hospital physician in a neighboring village. The patient seemed unchanged except for his visual field defect persisting. A repeat ventriculogram (Figs. 8-10) on December 11, 1956, was performed showing the cavity that remained following removal of his left parietal tuberculoma with no sign of other intracranial expanding lesion present. He was dismissed with Mebaral 32 mg. t.i.d. as anti-convulsant medication and no report of further seizures is available.

**Comment**—This represents a case where the history is shorter than with the patients having calcific tuberculomas. It is apparent that the large size obtained by this lesion without calcifying was probably due to less resistance to the tubercle bacilli than the other patients.

## CONCLUSION

In Alaska the incidence of intracranial calcific tuberculomas is higher than other tumors of the brain in the Alaskan Native. They are more prevalent in the third decade of life. The





**Fig. 10**

*Case 3: Postoperative  
ventriculogram*

duration of symptoms may vary from three months to many years. Some patients are asymptomatic and the lesion is discovered only by accident. Occasionally the lesions are so located in the brain as to defy surgical removal. The decision to remove some lesions may depend on the patient's sociological status and his proximity to adequate medical supervision during the follow-up period. Anti-tuberculosis drugs played a great role in preventing the postoperative complication of tuberculous meningitis. It was thought that the intense calcification in four of the patients, as evidenced by the radiopaque density on the skull x-rays plus the amount of calcareous hardness of the surgical specimen, made it less likely that these patients would have had post-operative tuberculous meningitis.

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# FIVE CASES OF HYDATIDIFORM MOLE IN ESKIMO WOMEN OF THE KUSKOKWIM REGION

*WILLIAM H. BROWNLEE, M.D., USPHS*

*BETHEL*

Hydatidiform mole is an infrequent form of pregnancy which poses problems in diagnosis and management. Despite a wide acquaintance with the signs and symptoms of hydatidiform mole and increasing use of quantitative biologic tests for chorionic gonadotropins, the passage of a hydatidiform mole frequently comes as a surprise to the obstetrician. Five cases are presented in detail. They represent five Eskimo women from the Kuskokwim Region in Alaska who were seen at the Alaska Native Hospital in Bethel. Four of these cases were seen within a period of eight months, while one was seen in 1954 by one of my predecessors.

The Alaska Native Hospital at Bethel is located about 500 air miles west of Anchorage, and is a 55 bed general hospital that offers medical services to the 12,000 Eskimo of the Kuskokwim Basin Region. These services are offered under auspices of the United States Public Health Service which employs a staff of 92 persons including one resident dentist and three resident physicians. I served as Medical Officer in Charge from July 1957 until March 1959.

The out-patient department of the Alaska Native Hospital at Bethel is a very active one; for in the busy summer months after the ice has gone out of the Kuskokwim River, the physicians examine approximately 2,000 patients a month. The Pre-natal Clinic is well attended by the Eskimo women; and despite the fact that distances are very great in this large country and means of travel are uncertain, most of the women have their babies at the hospital. Approximately 250 deliveries a year occur at this hospital. For further pertinent information concerning a rather interesting mode of follow-up contacts on our patients by radio may I refer you to the well written article which appeared in the October 6, 1958 issue of Time Magazine.



*DR. BROWNLEE*

The first case, C. G. a 35 year old Eskimo woman, was admitted to the Alaska Native Hospital at Bethel on March 21, 1954. She stated that she had noted since Christmas 1953 an increasingly large lump in her lower abdomen. This lump was not actually painful, but when she stood up or walked, she felt as if everything "was going to come out." She had felt nauseated frequently and vomited occasionally before admission. She had a normal menstrual period in November 1953 but had intermittent spotting in January, February, and March 1954. She thought she had lost weight since Christmas due to her loss of appetite and her nausea. She did not believe that she was pregnant. Her youngest child was 4½ years at that time and she had two other children as well. Initial examination revealed a slender, middle-aged Eskimo female who was very cooperative and did not appear acutely ill. Examination of the abdomen revealed a globular mass in the lower abdomen arising almost to the level of the umbilicus. This mass was freely movable. A



pelvic examination revealed a very irregular cervix, very "meaty" looking and irritable. The uterus seemed to be enlarged to about four months of pregnancy and the uterus was freely movable. The impression from the total history and physical was that of early pregnancy of four months, with the possibility of cancer of the cervix to be ruled out. Hemoglobin was 9.1 gms%. X-ray of the abdomen on admission failed to reveal fetal parts; but it was felt that the film was overexposed, so that it was possible that this may have obscured the bony outline. Another film failed to show any evidence of fetal skeleton. Chest x-ray gave the impression of moderately advanced pulmonary tuberculosis. On March 22, 1954 a biopsy was taken at three sites from the cervix and serum was sent for a pregnancy test. The cervical biopsy was reported as "chronic endocervicitis." The pathologist added that the "stromal cells and secretory activity present are compatible with, but not diagnostic of progesterone stimulation as seen in pregnancy." On April 6, 1954 the patient began having cramps in the lower abdomen and vaginal bleeding. A pelvic examination showed a spongy mass in the cervix and vagina. This was pulled out and handfuls of material were obtained. This was almost like cement, according to the description in the chart, with small cystic masses connected by fibrous strands. The clinical impression at that time was hydatidiform mole. Since the patient continued to spot vaginally, a dilatation and curettage was carried out and a large amount of necrotic material was removed, which showed microscopically benign hydatidiform mole. At that time the report of her sputum specimen returned from the laboratory as positive for tuberculosis. The patient was sent home after 34 days of hospitalization to await transfer to a sanatorium. Eventually this woman returned to her home in Hooper Bay, Alaska, and never had another pregnancy.

The next case is that of G. B., a 21 year old Eskimo woman from Hooper Bay who had her first admission to the Alaska Native Hospital at Bethel on March 20, 1958. Mr. John Gordon, the teacher in charge of the school at Hooper Bay, had been present when this woman was delivered of a hydatidiform mole in the village five days previously. The specimen was sent to us in a large pickle jar two days afterwards by Mr. Gordon with the statement that he had never seen anything like this and could we tell him what

it was. Her village was contacted by radio, and she was called in to the hospital for study since there had been considerable post-partum bleeding associated with the delivery. However, at the time of admission, the patient had been doing well and had no complaints except for weakness. A review of her pre-natal clinic records showed that she had been seen on February 13, 1958 at which time her uterus was enlarged to two months size, and no movement was noted at that time. She was gravida III with one miscarriage and one living baby. No information as to the type of miscarriage was available. The record further revealed that the patient had complained of pains in her stomach, side and hips. She had had a rather sharp pain in her right upper quadrant and across the upper abdomen which had lasted about 30 minutes each time it occurred. She had had the same pain with her abortion four months prior to the visit. She had thought that she might be pregnant since her last menstrual period was early in December 1957. This pain had no relation to eating fatty foods. She stated that she had had the pain almost daily from September 1957 until February 13, 1958 when she was seen in the clinic. No nausea or vomiting or change in bowel habits or appetite was noted. Physical examination revealed the uterus to be enlarged consistent with a two months pregnancy. On March 26, 1958, because of continued vaginal bleeding, a dilatation and curettage was done under spinal anesthesia. The uterus was carefully sounded and the cervix dilated. The dull curette was used, producing a large amount of tissue including definite hydatid "grapes". She made an uneventful recovery and was discharged on April 1, 1958. In May 1958, after considerable difficulty in getting a blood specimen from her in her isolated village, gonadotropin and Friedman tests were done and were negative. On Dec. 11, 1958 on a field trip to Hooper Bay, I performed a pelvic examination and found the patient to be about three months pregnant again. On March 6, 1959 radio contact with the village revealed that the patient appeared to be having a normal pregnancy with definite fetal movements.

The next case E. A., a 23 year old Eskimo woman from the very isolated village of Nigtmute was admitted for the second time to the Alaska Native Hospital at Bethel on April 22, 1958. She claimed to be about six months pregnant and had been well until about seven weeks before her admission at which time she noted the onset of



vaginal bleeding with clots on occasion. There was no passage of tissue at any time. The bleeding had been continuous but variable in amount. She noted back and bilateral lower abdominal pains for about three weeks before admission. She further admitted to frequency of urination, as well as some distress upon passing her urine, and weakness. She thought that she had felt fetal motion "sometimes." There had been no swelling of the ankles. She had been delivered of a normal female infant spontaneously on February 22, 1956. She had an uneventful post-partum observation period in the hospital at that time. On March 9, 1958 she was seen in our out-patient department and had complained of intermittent epigastric pain of two years duration which was worse of late and unrelated to food. Physical examination was essentially negative at that time except for the comment by the clinic physician that she was three months pregnant, and she was given tincture of belladonna and elixir of phenobarbital for home treatment. On admission physical examination revealed her to be a fairly well-developed and well-nourished Eskimo woman who looked pale but otherwise in no distress. The temperature was 99.8°, the pulse 110, and the blood pressure 124/86. There was minimal costo-vertebral angle soreness on the left. The fundus was enlarged to two finger breadths above the umbilicus. There were no fetal parts palpable and no fetal heart tones were heard. There were no other enlarged organs to palpation, but a uterine souffle was easily heard in the right lower quadrant. Bi-manual examination revealed a soft mass presenting anterior to the cervix. No fetal parts were felt on vaginal examination. Dark blood was noted in small quantities in the cervical os and vagina but no tissues were present. The examining physician felt that the patient represented a case of threatened abortion with a question of placenta previa and premature separation. The hemoglobin was 8.2 gms. %. White blood cell count 4100 mm<sup>3</sup>. There was 1+ albuminuria. The patient continued to soil pads with dark bloody stain. Cramping and abdominal pain began on May 5, 1958. Vaginal examination at this time showed a small amount of molasses-like material in the cervical os and the vaginal canal. On May 12, 1958 she passed two small c'ots. Her blood pressure was then 150/90, but her pulse was 120; and another physician then noted that there were no fetal parts on examination. The hemoglobin had dropped to 7.7 gms. %. A flat plate of the

abdomen was then taken and showed no evidence of bony structure. A diagnosis of hydatidiform mole was made. Accordingly, on May 14, 1958, she was taken to the operating room and a dilatation and curettage was done, producing a large amount of gray black clusters of tissues, typical of hydatidiform mole. She was given a blood transfusion. She did well following this procedure and was discharged after a total of 22 days hospitalization. The pathologist confirmed the presence of hydatidiform mole. She was given instructions to avoid pregnancy for at least one year, and she was to get follow-up Friedman tests and quantitative gonadotropin hormone levels at two weeks and six weeks from the date of discharge. She was instructed to return to our out-patient department for a repeat pelvic examination within six weeks. However, due to the extreme isolation of her village she was not seen again nor were we able to obtain further blood studies. On September 25, 1958 the village of Nigtmute contacted me by radio and stated that the patient was very ill. There was a history of having been bleeding vaginally since September 6, 1958. And then, on September 21, 1958, she had developed fever, severe headaches, and chest pain and had begun vomiting dark bloody-like material 24 hours before her death on September 25, 1958. I took a "bush" plane to the village for the purpose of doing an autopsy, but on arrival at this isolated village the superstitious family refused permission for the post-mortem examination. I was shown her body as it was lying fully clothed in winter furs and parka hood in her little hut. Subsequently, I received a letter from the teacher in this village of Nigtmute, indicating that the reason for the refusal for the post mortem examination was that the native shaman (medicine man) had stuck a knife into her abdomen "to let the pain out." Apparently this is their standard treatment for pain!

The fourth case is that of J. N.. This 23 year old Eskimo woman from the village of Nunaput-chuk presented herself at the Alaska Native Hospital in Bethel, on September 24, 1958 as an emergency case because of severe vaginal bleeding. She was referred in from the Radio Clinic. The history was necessarily brief. Her last menstrual period was about three months prior to admission. She had started to bleed vaginally on September 22, 1958 at home. She stated that she had changed pads three to four times a day (but it was noted on admission that she had a



blanket wedged between her thighs for a pad at that time!). She stated that she was weak and that she had passed two large clots on the morning of admission. This was her first hospitalization. Physical examination upon admission revealed a well-developed thin Eskimo woman who was very pale, sweaty and weak looking. The blood pressure was 104/64 and the pulse was 140. The mucous membranes were very pale. The heart rate was very rapid but otherwise no abnormalities were noted. The uterus on abdominal palpation was enlarged to approximately five and one-half months. No fetal heart tones could be heard. Dark red blood poured from the vagina initially on examination and then a soft material was palpated. When the speculum was inserted, the cervix was found to be dilated four to five cm. and the material appeared to be that of placental tissue in the os. The initial impression from this examination was "placenta previa 100%, placenta abruptio as a possibility, and third, probable incomplete abortion." A new physician on our staff had done this examination and had not had the advantage of our recent experience with hydatidiform mole. On admission she had 3.4 gms.% of hemoglobin and a white blood cell count of 15,000 mm<sup>3</sup>. She was given three units of blood. A flat plate of the abdomen revealed no evidence of fetal parts. The patient was taken immediately to the operating room, and a manual removal of a hydatidiform mole was done. The uterus was then carefully scraped using blunt curettement and a vaginal pack was placed to control the bleeding. This pack was removed six hours later, and no bleeding followed. She made an uneventful recovery and was discharged to be followed in the out-patient department. The tissue specimen report confirmed the diagnosis of hydatidiform mole. She returned to her home on October 16, 1958 only to begin bleeding again and was readmitted on November 20, 1958. A dilatation and curettage was done revealing normal endometrium in the proliferative phase. The hemoglobin was 13.6 gms.% at this time. On December 12, 1958 a urinary gonadotropin hormone level was negative. She was treated for incidental tapeworm infestation in January 1959 at which time another negative gonadotropic hormone study was obtained.

The last case in our series was that of F. A. This 21 year old Eskimo woman from Hooper Bay was first admitted to the Bethel hospital on October 11, 1958 because of vaginal bleeding

of two months' duration. She had missed June and July periods, stating that her last menstrual period was May 16, 1958. Her expected date of confinement would have been February 22, 1959. She apparently began to flow early in August. She flowed daily from the onset of bleeding but had no cramps. There were no clots passed until October 9, 1958. She noted that the flow was mostly at night filling about two pads daily. She was seen in the out-patient department on August 7, 1958 because of heavy bleeding and was ordered to bed for five days. She was a gravida I, para 0. In October she was observed for eleven days as an in-patient at which time it was discovered that she had a hemoglobin of 8.5 gm. %. A flat plate failed to reveal fetal parts, yet her uterus seemed to be enlarged to about five months or more. It was my feeling at this time that she might have a hydatidiform mole, and she was discharged for follow-up care in the out-patient department. She returned a month later claiming that she had felt fetal movements up to the time of her admission but not since then. She had not passed any tissue and by history she was not felt to be as far along as she appeared to be upon physical examination. My diagnosis on second admission was hydatidiform mole. The patient had been treated for tuberculosis in a sanatorium. On clinical examination now there was some disagreement among the other physicians examining the patient as to just what the diagnosis might be. The abdomen appeared to be enlarged to 6½ months according to one examiner, but another examiner felt that she was only five months pregnant. No fetal heart tones were heard and no fetal parts were palpable. No fetal movements were observed. Direct vaginal examination revealed a hard cervix opened about 0.5cm. with dark blood in the vaginal canal. It was the feeling of one of the doctors that this case represented one of threatened abortion. The hemoglobin was 10.6 gms.% on admission with a white blood cell count of 13,000 mm<sup>3</sup>. A flat plate on admission again failed to reveal fetal parts. On November 19, 1958, the patient reported that she was having pains every 15 minutes but no increase in the amount of bleeding. On November 20, 1958, she was taken to the operating room for a sterile pelvic examination. A spinal anesthetic was given and a dilatation and curettage was carried out, with the removal of a degenerated appearing mass, placental-like in appearance with many "grapes" attached to it. It had a very foul odor



to it, and since the patient was febrile a course of penicillin was started. The pathologist confirmed the clinical impression of hydatidiform mole. On November 20 at time of dilatation and curettage a blood test for a gonadotropin level was taken and the hemoglobin was 11.0 gms.% and the white blood cell count 25,000 mm<sup>3</sup>. The patient made an uneventful recovery and was discharged on November 23, 1958, to be followed in the out-patient service. On December 15, 1958, she had a repeat pelvic examination which was negative and the patient was given a contraceptive and was told not to get pregnant for the next year. Another gonadotropin study was done on December 12, 1958, and revealed a strongly positive test in undiluted serum but a weaker positive reaction in 1 to 100 dilution. A repeat gonadotropin hormone level on January 2, 1959, revealed all dilutions negative. On January 22, 1959, the Friedman test was negative. The first gonadotropin level was never reported. Our last report on her was in January, 1959, over the Radio Clinic, at which time she had been doing well in the village of Hooper Bay.

Reference to the literature on this subject reveals that the disease is relatively rare, occurring in one out of every 2,000 pregnancies. The fact that three cases occurred in the village of Hooper Bay with a population of 500 makes a most unusual and remarkably high incidence. The other interesting fact that four of these cases occurred within eight months made it almost appear epidemic in form to this writer. These cases would then represent approximately 40 years of obstetrical experience at the Alaska Native Hospital in Bethel on the basis of the usual incidence rate. Further, these patients demonstrated the difficulties in diagnosis of this condition except where a high index of suspicion exists. Our rate of successful diagnosis will be improved if two aspects of this disease are always kept in mind: First, hydatidiform mole represents a genuine though abnormal pregnancy but may differ from the normal in degree and time of occurrence. The uterus may be softer than normal and, as in our cases, enlarges with unusual rapidity. And second, there will be variations in the signs and symptoms of pregnancy. Bleeding is frequent and should arouse suspicion of the presence of a hydatidiform mole.

Review of the literature shows that the chance of any pregnancy being molar in character increases in older age groups, so that in women

over the age of 40 any pregnancy accompanied by abnormal symptoms should be regarded with suspicion. However, our four recent cases were all young women. But bleeding definitely is the major symptom in cases of hydatidiform mole and was a prominent symptom in all our cases. It is essential in treating these cases that there should be a prompt and complete evacuation of the uterus, which in most cases can be successfully accomplished by curettage. Careful follow-up examination, with frequent biologic tests, are important in the early detection of chorioadenoma destruens and choriocarcinoma. The former condition may be found in approximately 10% of the cases and the latter condition, immediate or remote, complicates 2 to 3% of all hydatidiform moles.

The third hazard of this condition of subinvolution of the uterus due to retention of mole tissue, which together with the invasive hydatidiform mole, become manifest within the first two to three months after the original passage of the tissue, and generally with the same symptoms.

### SUMMARY

In conclusion, then, five cases of hydatidiform mole found among Eskimo women of the Kuskokwim Basin, three of whom were from a small population of 500 in the village of Hooper Bay, Alaska and four of the cases occurring within eight months at the Alaska Native Hospital, Bethel, Alaska, have been reviewed. The unusually high incidence for a total of 12,000 Eskimos has also been brought to the reader's attention. This represents the incidence expected in approximately 40 years of this unusual obstetrical condition. Classical clinical symptoms of this condition have been demonstrated in these cases. Briefly, the treatment and importance of careful follow-up examinations have been stressed. No light was shed as to the etiology of this condition.

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# PRINCIPLES IN THE CARE OF HAND FRACTURES

*ADRIAN E. FLATT, M.D., F.A.C.S., F.R.C.S. (Eng.)*

## PART TWO OPEN FRACTURES

"Hand surgery is reduced to its worst if indications are based on separate considerations of any particular structure" — Rank & Wakefield (1953)

It is of the nature of the hand to suffer compound injuries. There is such an extensive and intricate mechanism packed in the small space between the skin and skeleton of the hand that bony injury must be associated with soft tissue damage. Since many of these injuries are of the compression type, there is depth to the soft tissue damage and the cover is often destroyed.

In some cases the soft tissue damage is relatively slight but in others it is frequently of greater importance than the actual fracture. Severe damage to the tendons and the neurovascular bundles may so cripple a finger that even if the skin wound could be closed and the fracture reduced, the best result that could be anticipated would be a stiff insensitive skin cylinder containing a healed fracture. Discretion is the better part of valor in such cases and immediate amputation will produce a quick and satisfactory result. Wholesale amputations are not justified but treatment must be related to the hand's occupation, and it is unprofitable for the patient to spend many days in the production of a finger which he will not use and which may even be a hindrance to him in his work.

In all cases treatment must be planned to provide intact skin cover, restore continuity of the other soft tissues and place the fractured bones in the Functional Position. The restoration of skin cover is of paramount importance and must take precedence over the fracture. Good care of soft tissues inevitably leads to good treatment of the fracture since in both instances the hand must be placed in the Functional Position.

## DEBRIDEMENT SKIN COVER

The arbitrary and inviolate time limit of six hours for the closure of compound wounds is not applicable to hand injuries. There is virtually no open fracture of the hand which cannot be closed primarily following correct debridement. Basic surgical principles cannot be ignored and all obviously dead and grossly contaminated tissues must be excised. Debridement must be done with care—wholesale excision of tissues is prodigal and the hand will not respond kindly to such treatment. The primary aim in all treatment must be to establish complete skin cover for the whole area. Excision of the skin edges should therefore be minimal and only obviously dead tissue should be removed. If, following this excision, the edges of the wound do not meet without tension, there is no alternative but to apply a split-skin graft to the defect. Swelling of the wound during the first few days must be anticipated and even if the wound edges can be brought together by mild tension, it is wise to anticipate this swelling and use a skin graft to close the defect. Neglect of this principle will produce infected wounds in which the edema has torn out skin sutures and allowed surface contaminants to invade the underlying bone and soft tissues.

The ultimate functional result of a hand injury is decided by the efficiency of its primary care. If the hand is allowed to fall into a non-functional position in the early weeks of care subsequent rehabilitation may prove impossible. The size and shape of the skin defect must be assessed with the hand held in the Functional Position. In some injuries the destruction of the hand is so gross that one is tempted to use a skin flap instead of a free graft to provide the skin cover. Such a procedure seems easy, but in fact the use of a skin and fat pedicle can produce



many complications. Principal among these is the difficulty of maintaining the hand in the correct position during the two to three weeks needed for the skin flap to consolidate. A skin flap cannot survive unless the subcutaneous fat, in which run the blood vessels, is moved with it. The hand contains very little fat and a flap should therefore carry little fat. The most suitable area from which to obtain such a flap is the infraclavicular region. Unfortunately, both sexes resent scars in this area and fashion dictates the subumbilical area as the donor site. The subcutaneous fat in this area is metabolic storage fat and retains this function after transfer to the hand. The fat is, in fact, parasitic and should the patient subsequently become obese the hand also will swell. (Figure 12).

**Fig. 12**

*The fat in an abdominal flap is parasitic. It is, and will always remain, metabolic fat. These pictures show how the fat beneath the flap will keep pace with a patient's protruding abdomen.*

An additional complication of using skin flaps is the risk of infection occurring in the subcutaneous fat. This fat has a poor blood supply and exceptionally thorough debridement is needed to reduce this risk. Should infection occur a draining sinus will remain open for many weeks (Figure 13). Thus extensive scarring is liable to occur and the main objective of providing primary skin cover to prevent scar formation has been defeated.







**Fig. 13**

*The use of skin flaps as primary cover on major hand injuries incurs the risk of infection developing in the subcutaneous fat. In this case, a low grade infection developed in the fat and drainage continued for many weeks.*

## NEUROVASCULAR DAMAGE

### Vessels

If a digital artery is cut, both ends should be ligatured with the finest catgut obtainable. If both arteries are cut the finger cannot survive and must be amputated. Arterial damage within the palm is not important. The anastomotic system is so extensive that major vessels can be ligated without fear of inadequate arterial supply. In young people the hand will survive even if both the ulnar and radial arteries are tied off. In middle aged and older groups the hand can still survive when both these vessels are lost, but the intrinsic muscles, which are particularly sensitive to lack of blood supply, will usually become fibrotic.

Although little can be done surgically about vein destruction, it is important in the overall care of the hand. Edema follows obstruction to the venous return and since the venous drainage of the hand is not as extensive as the arterial

supply, swelling must be anticipated after vein damage. This swelling is particularly noticeable if the trauma has raised a flap which is based distally (Figure 14). In some cases this edema persists and organizes. The fibrous tissue formed has a great influence on the final functional result.

### Nerves

A damaged digital nerve can sometimes be primarily repaired. If the ends are ragged and contused, attempted anastomosis will be useless. A clean cut nerve can, however, be primarily repaired by direct suture through the neurilemmal sheath using one or two 6.0 black silk sutures. Black silk is useful because the color is easily located should subsequent surgical exploration be necessary. The same principles can be applied to damage of the larger nerves within the palm. When the injury makes the success of primary repair doubtful, these nerves should be, if possible, sutured side to side with black silk so that subsequent repair is made easier.



**Fig. 14**

*FROM: Flatt, A.E., The Care of Minor Hand Injuries, C.V. Mosby Company, St. Louis, 1959. Destruction of venous drainage in a distally based flap will delay healing and produce persistent edema of the skin.*



## TENDONS

Phalangeal fractures are frequently compound and the flexor and extensor tendons are particularly likely to be damaged by sharp spikes of bone at the fracture site.

Flexor tendons injured within the finger do not respond well to primary repair and attempts to suture cut flexor tendons in this area are doomed to failure. Longitudinal lacerations of tendons do occur and heal better than might be expected. The reparative powers of tendons are good even if there is only a third of their cross section in longitudinal continuity. The ragged strands of tendon should be removed when the debridement is being performed. It is advisable to cut back tendon sheath on either side of the damaged area until at least  $\frac{1}{2}$  cm. of normal tendon is exposed. By doing this, the risk of subsequent adhesions is greatly reduced.

Because injuries of the flexor tendons have such poor prognosis, extensor tendon injuries have acquired a reputation of being easy to treat. This reputation is thoroughly undeserved and attempted repair of the extensor mechanism within a finger is usually fruitless. The extensor tendons lie in a very narrow space between skin and bone. The lack of protective tissues in this area means that adhesions will readily occur between the tendon and adjacent skin and bone.

The anatomy of the extensor mechanism within a finger is extremely complicated, and it is virtually impossible to reproduce the mechanism by end to end sutures of such flat and thin tendons.

The tendons on the dorsum of the hand are more bulky than within the fingers. Primary repair is justified in this area if the tendons can be brought together with little tension and if good skin cover can be provided for the fracture and site of tendon anastomosis.

## THE FRACTURE

During debridement the fracture site will have been exposed and the extent of damage assessed. Its reduction should be planned before any damage to other tissues is repaired. Delayed reduction of fractures can be accomplished within the first week of injury but this procedure holds no advantages over immediate open reduc-

tion at the time of primary surgery. Comminuted fractures will show many fragments which it will be tempting to remove. Every piece of bone with any soft tissue attachment which could possibly bring in a blood supply should be left at the fracture site. Only bone fragments which are completely detached and are therefore potential sequestra should be removed. If examination of the fracture shows that reduction cannot be maintained without traction, it is wise to consider the use of internal fixation.

Traction through the distal pulp is commonly advised but such traction can lead to many complications and is usually painful. If traction has to be applied to maintain position, it is probably wiser to transfix the bone of the middle phalanx with a Kirschner wire than to try soft tissue traction. It follows, therefore, that if a wire is to be introduced into a bone of the finger, it is just as practical to pin the actual fracture site with a Kirschner wire.

## Internal Fixation

Internal fixation of hand fractures is not technically easy and is subject to all the rules governing the introduction of metal anywhere within the body. It must be considered a formal operating room procedure and cannot be done in the presence of general sepsis or septic local skin conditions.

Both metacarpal and phalangeal fractures can be pinned with Kirschner wire (Size 1-1.5 mm). The transverse and oblique fractures can be easily pinned; comminuted fractures are difficult to pin and are frequently best treated by splinting. When Kirschner wires are used in comminuted fractures, one wire should be used to establish the general line of the long bone and possibly an additional wire should be placed obliquely to the first to hold major fragments in place.

The direction of the wire will vary with the line of fracture, but in general it should be directed so as to cross the fracture line at a right angle (Figure 15). It should always be placed so that one end can be passed out through the dorsal skin of finger or hand. Some prefer to leave the wire protruding through the skin during the healing phase of the fracture. It would seem wiser to cut off the wire just beneath the skin so that there is no risk of skin surface in-



Fig. 15

*Compound fractures can be held reduced by pinning with Kirschner wires. Often satisfactory immobilization can be obtained by slanting a single wire obliquely across the fracture site.*



fection passing along the pin track into deeper tissues and the bone. If one-tenth to one-eighth of an inch of wire is left protruding from the dorsum of the bone, the skin overlying the end will heal satisfactorily. If a greater length is left, there is a risk of pressure necrosis on the skin. By cutting off the wire beneath the skin, early movements can be encouraged and the wire need not be removed until complete healing has occurred. There is usually no hurry in removing the wires. They should have been placed so as to allow full hand function and they can be left in situ until there are radiological signs of union.

Removal of a wire can be easily done in the office. A small nick is made in the skin overlying the wire after infiltration with local anesthetic. The wire end can be felt with the scalpel point and the extracting instrument introduced directly onto the wire. Hemostats and forceps are not suitable extracting instruments; by far the most suitable is a pair of electrician's thin-nosed pliers. These can be bought at any hardware store and do not suffer when boiled.

## GROSS INJURIES

Extensive compound injuries of the hand from gun shot wounds, corn pickers and similar machinery are major surgical problems and demand good operating room facilities for their care. Basic principles must be applied and a clear distinction must be made at the outset between surgery which will clean the hand and dress it with skin and surgery which is planned to salvage ultimate function. Occasionally the two types can be combined, but only too often primary healing is jeopardized by surgery which more properly should be done as a later definite stage after primary healing has occurred. These badly mangled hands will tolerate only the most gentle surgery and yet the surgeon must give the hand every chance to recover by performing a thorough debridement and providing complete skin cover.

Edema inevitably occurs in the first week after these gross injuries and the tension it creates must be considered when planning both the



skin cover and fracture treatment. It is often tempting to use the local skin which may have been partly avulsed during the accident. If this skin flap is based distally it is unlikely to survive and its immediate replacement by skin grafting must be considered. It is impossible to be dogmatic about the survival chances of badly traumatized skin. Experience alone must be the guide and often proves very inadequate (Figure 16). Badly bruised skin based distally will almost certainly not survive; even when based proximally it is a bad risk. If the local skin is used,



Fig. 16

*The problem of predicting the chances of survival for traumatized skin are insoluble. This "corn-picker hand" took ten days to define the exact area of skin loss. It could have been impossible to map out this area at the time of injury and it is therefore better to excise and graft the area of loss directly it is demarcated.*



Fig. 17

*This hand received a shot gun blast at close quarters. Debridement to the center of the hand left a large central defect. An abdominal flap was used to fill the defect. The fat became infected (see Figure 13).*

it must be replaced directly it shows defined areas of loss. Every day of prevarication increases the amount of scar tissue that will organize and "freeze" the hand.

In general for skin replacement it is better to use split skin grafts since these will almost invariably "take". Since the primary aim is to provide skin cover in the shortest possible time it is usually wise to use postage-stamp sized grafts rather than sheets of split skin. The cosmetic appearance is unimportant and sheets of skin may be floated off their bed by serum or hematoma which would drain out between the edges of small grafts.



In some cases, however, the destruction of tissues is so great that a large hole is left in the hand following debridement (Figure 17). Such cavities may seem difficult to provide with skin cover and it is tempting to consider the use of an abdominal flap. Such flaps will readily fill the defect but complications must be expected because of the inevitable hematoma formation in the depths of the wound (Figure 13). Once it is certain that skin cover without tension can be supplied, the fractures within the compound area

should be cleaned, loose bone fragments removed, and the ends placed in reasonable alignment. Kirschner wires can be used to maintain reduction, but should not be routinely used. It is better by far to obtain prompt complete primary healing of the skin with some displacement of the fractures than to be faced with a hand which despite a neat x-ray appearance shows wires protruding through broken down areas of skin cover. Malunions can be easily corrected; osteomyelitis of the hand can be impossible to cure except by amputation.



# Editorial Page . . .

It seems apparent that the State Health Department is rapidly losing effectiveness as judged by the numerous administrative staff reductions, and by the further loss of qualified personnel in technical and professional positions through widespread resignations. The recent conflict between the City of Anchorage and the local health district is a symptom of this. The decline of the Division of Health, although overshadowed in professional circles by the attention given to the political juggling going on in the Division of Mental Health, is probably of more direct concern to the public in general. The medical profession has, in the past, made numerous recommendations concerning medical problems during the time of organization of the state government and since then regarding its administration. Unfortunately consultation of the profession has rarely been requested by those making decisions in health matters, and when offered, has usually been treated as another set of demands by a pressure group. This is regrettable since the medical profession receives little direct benefit from the Health Departments but has been motivated essentially by its basic dedication to the medical welfare of the public whether privately or collectively.

Part of the problem now seems to lie in the administrative organization of the state government which is without a separate department of health and is without provision for the qualified professional direction of such a department. Salary scales are unrealistic and competent people obviously can be obtained only with difficulty. Despite the obvious financial problems which we all recognize within the state government this has been amply demonstrated to be a false economy.

Since the solution of the present difficulties appears to lie inevitably in the hands of the legislature and since elections are to be held in the

near future it would seem desirable to bring the present serious deficiencies to public attention before November. Individual physicians throughout the state may help greatly in explaining the need for adequate public health facilities to interested local groups and by having them in turn insist that candidates for office be aware of these problems and entertain some constructive ideas for appropriate solutions.

With these considerations in mind the staff of ALASKA MEDICINE invited the recently retired members of the Departments of Health and of Mental Health, Dr. Harry V. Gibson and Dr. J. B. K. Smith to make such comments as they might feel would be informative. Dr. Smith wrote a rather lengthy critique which we are unable unfortunately to print as a whole but from which we have taken the liberty to quote those passages which we feel are most relevant. Dr. Gibson also was kind enough to write a thoughtful and constructive letter which is also printed below. Our thanks to both these men, for these efforts in the public interest. Had they chosen to disassociate themselves from our problems completely their actions would have been quite understandable. In addition Governor Egan and Mr. Paul Winsor were invited to make such comments as they chose regarding the contemplated future plans for the Divisions of Health and Mental Health, but only perfunctory replies were obtained.

We feel that the recommendations of Drs. Gibson and Smith are well worth your study. May we suggest that you familiarize yourselves with the present public health situation in your own community, that you take those actions necessary to engender local public interest and therefore interest among the legislators in creating an effective public and mental health program.



# *Letters to the Editors . . .*

Alaska Office Building  
Division of Health  
Juneau, Alaska  
June 16, 1960

Robert B. Wilkins, M.D.  
Secretary-Treasurer  
Alaska State Medical Association  
718 K Street  
Anchorage, Alaska

Dear Bob:

Thanks a lot for your heartening note concerning my resignation. Since I stand to make gains, both financially and physically by the move, I do not need any personal sympathy at this point, although both my wife and myself have grown very fond of Alaska. However, I too am very much concerned over the tactics of the legislature in dealing with public health in Alaska. At present this agency seems to be completely at the mercy of partisan politics. I'm afraid the situation has some of its roots in the Constitution, and is going to be difficult to correct. The normal intended balance between legislative, judicial, and executive, has been upset by the legislative tactics of line item budgeting and of issuance of orders directly to Commissioners by legislative groups—especially the finance committees. Of course, the elimination of Boards augmented this effect. Such meddling directly with the programs seems to me to be quite irregular and to destroy effective administration.

I feel quite critical of Chapter 64, SLA 59, inasmuch as I interpret it to transfer authority, duties, and performances previously assigned a licensed physician to a political appointee with no legally required professional qualifications. The laws concerning public health in Alaska were mostly passed when a licensed physician was head of the service, and many of the required duties are forbidden to unlicensed persons. I cannot accept the concept that the Commissioner of Health and Welfare can meet this by employing a licensed physician on his staff, when Chapter 64 specifically spells out the authority otherwise. I now see no guarantee to the people of Alaska that they will receive competent services. The

Commissioner of Health and Welfare is now required by law to practice administrative medicine.

Constructively, I believe Chapter 64 should be carefully re-evaluated. If it appears that it cannot be interpreted so as to afford needed protection of the health programs, then the alternate action is to return to a Department of Health with a requirement that the Commissioner be duly qualified in medicine and public health. Public interest certainly requires some check on use of medical authority.

There is clear need for a board or council of health, to act as intermediary for the general public. It should be strictly non-partisan, and preferably made up of delegates from the most interested organized groups—medicine, dentistry, nursing, PTA, education, tax-payer groups, Chambers of Commerce, service clubs, etc. Such a group could act unrestrained by rules and regulations which hamper a health officer in his actions, and without political restraint. The State of Washington has such a council, and I'm sure Dr. Bucove would gladly supply the details of how it was organized. I believe Mr. Winsor has already requested an advisory group from the Alaska Medical Association.

Another current departure from logistic reality by the legislature has been the weakening of central office functions in the Division of Health before any local provision has been made to take over these functions. Legally the responsibility still rests here, and will do so until boroughs and other local governments are firmed up to accept the programs. This situation will cause a great curtailment of services in some communities—especially those not covered by Native Service contracts.

The only advantages which I can see in the merging of Health and Welfare is (a) a possible slight savings in fiscal office operations and in clerical help; (b) a possible real gain in expanded use of medical reasoning in welfare medical care. This would depend upon adequate medical staffing in the Division of Health and its utilization, but if it proved successful in keeping diagnostic

matters in medical channels it would be a good result. From all my recent observations I'm afraid the trend is just the reverse now. Any direct gains in money are more than offset by added expense of operating an additional top level office. The merging has also complicated validation procedures in use of Federal funds.

I believe that this summarizes my estimate of the situation, and I have no reservations regarding public use of any of it.

I wish to express my gratitude for all help received from the medical profession in the past few years. I think we all agree it has been rough going. I trust the next few years will be better. I shall retain my deep interest in affairs here.

Sincerely,

Harry V. Gibson, M.D., Director,  
Division of Health.

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**The following statement (not printed in its entirety) was submitted to Alaska Medicine by Dr. John B. K. Smith, who recently resigned as Director, Division of Mental Health, Alaska Department of Health and Welfare.**

First may I say that the over-all Mental Health Program of Alaska was handed to me on paper by my predecessors and that little or none of it had been implemented in fact other than the establishment of a clinic in Anchorage.

It fell to me to tie together the paper work which existed and to examine critically the potential in Alaska for a good program in Mental Health in the light of modern thinking and knowledge.

This program was to be all comprehensive and cover the fields of restoration of the mentally ill, the prevention of mental illness, and also to promote values that would improve the mental health of the State. Beyond this an allied field became the responsibility of the Department in participating in a part of the program of Mental Retardation.

All this required planning, negotiating, soliciting and educating the public, the Department and even the Legislature. In this there were many resistances.

One specific area of this resistance was not in the executive branch of Government but in the legislative branch.

It has always been my belief—I could be wrong—that the function of the various committees of the legislative branch of Government is to search out all the facts available as well as all the expert opinions available to enable them to make the most objective decisions for the benefit of the health, welfare and economy of all Alaskans.

I regret to say that much of the advice of the experts and many of the facts which could have been provided were for some reason or another never obtained directly from those responsible. Whether this was meant to be a reflection on the Executive Branch or whether they obtained the advice and facts elsewhere is irrelevant and immaterial, the fact remains the people directly responsible were not consulted. . .

It was imperative in Alaska's planning that we take a broad view of the situation in the light of modern and scientific advances and to plan progressive programs for psychiatric care and treatment. The Division of Mental Health came to very definite conclusions about this program.

Whatever type of practice we follow as a matter of specialization and of individual interest and preference, there can be no doubt that psychiatric or medical care or preferably total care ranges from the office visit to total hospitalization for prolonged periods of time.

The well adjusted mentally retarded child and adult belong in the community, not in a residential facility. This applies to approximately 90 percent of the mentally retarded population. Accepted psychiatric principles do not support the separation of any child from his family if the only purpose is to make an educational program available to him.

The primary responsibility for these patients will rest in the hands of the parents, educational specialists, social agencies, and people concerned with employment (e.g. employers, vocational schools, employment counsellors, etc.). Psychiatry will be a peripheral agent.

This area is wide open to inquisitive psychiatric ingenuity, which cannot mean application of rigid and orthodox principles of only one approach or another. It will have to be an open



minded acknowledgment of the potential contributions and the aggregate knowledge of both physiological and psychological investigations. This will require cooperative acceptance of and communication with all specialists in their relevant field and agencies involved with the program. It is moreover no longer appropriate to provide the general practice type of medical care and ignore basic medical problems which brought the patient to the hospital in the first place and keep him hospitalized for years, possibly the rest of his life. For this reason residential institutions must be viewed as medical facilities . . . I would now like to apply these general considerations to the planning of a State Mental Retardation Program.

It was our conviction to structure our psychiatric services so that all therapeutic skills beneficial to children would be made available to the psychiatrically deviant child regardless of the specific category in which he may have been classified.

First there is the aspect of the scope of planning which must cover the pre-school age, the school age, and the adult group. Within these groups there is the need to see the levels of treatment (here I refer to the meaning as found in Webster's Dictionary such as 'handling or management of') for these groups.

Obviously the highlights of the above dissertation are as follows:

1. To establish a multidisciplinary basis for services ranging from hospitalization through training, education, placement, community education and employment agencies, and employers.
2. To establish a multidisciplinary Diagnosis Center covering all the appropriate specialties of medicine and the social services and psychology.
3. To merge both of the above into the basis for research.
4. Finally, to plan facilities for the adequate treatment of the various etiological factors on a comprehensive basis of physical, pathological, mental and sociological origin.

This means that care and treatment of such individuals will involve not only a therapeutic approach to each patient, but also a program involving his family and community.

A concerted effort has been made to involve the Departments responsible for each and every segment of the total picture. As a result an Interagency Committee was established in Juneau to negotiate, plan and decide on a long term range what services and facilities would be required; to establish the roles and responsibilities of each, and to enumerate the types of facilities required on a community basis, as well as day centers and residential centers.

The role of mental health was to provide a suitable diagnostic center and certain limited residential treatment centers for these people as well as an out-patient service. The clinics were already providing some of these services. The diagnostic center of a residential type was already planned and going into effect in the building of the Hospital at Anchorage where easy access exists to the specialists of the various disciplines required for this service. **In my letters of April 10th and May 6th, 1958, to the Board of Health it was pointed out that the Valdez facilities could not meet these requirements— as advisor to the Board of Health through the Commissioner my expert opinion was not to use the Valdez apartments.** In spite of this expert advice the legislature in 1959 appropriated money to renovate the Valdez Apartments, and in 1960 they did not even ask for expert advice and in point of fact denied the Commissioner this privilege.

On May 13th, 1960 Rep. Russ Meekins (published in the Anchorage Times) said Valdez was 'a political compromise' in spite of the expert opinions not to use it. This facility does not fit into the modern trends of a progressive Mental Retardation program.

Anchorage, on the other hand, was planned around an acute intensive treatment program, making use of every available resource in the community such as specialists and related agencies and using the clinics as a referral source. The coverage of this hospital is from infancy to geriatrics, starting of course with the highest skills available on the diagnostic service.

It was regrettable to see further evidence in the Anchorage Times of May 13, 1960, in which Rep. Russ Meekins was again ignoring expert advice and opinion to retain Anchorage as an acute treatment center by saying, "A wing can be built on the Goose Lake hospital at a later

date to house 'custodial' patients who will be receiving temporary care at Valdez."

First of all, 'custodial' care is not a function of the Division of Mental Health, but of the Division of Welfare or Health. Secondly, 'custodial' is foreign to the vocabulary of the medical profession because it would be failing miserably in its responsibility if even in the area of chronic illness research and ingenuity were not constantly formulating new methods of treatment and rehabilitation.

For this other facilities must be envisaged where there exists a three-way road one to the active treatment center, one to suitable placement, and one back to the community.

Community planning is fundamentally responsible for the success or failure of present and

future management of the problems of Mental Deficiency.

Wise community planning supports research, it educates its citizens to understand and accept, it insures adequate medical care and training for the retarded, and wherever possible it arranges for remunerative employment.

Finally our appeal, i.e. the Division of Mental Health's appeal, to the Legislature for money for research met with a dogmatic negative.

When the legislature refuses to listen to the needs of its voting constituents and plans its own programs by ignoring the experts there is little need for the existence of experts in the executive branch to guide them, and the final responsibility to right the wrongs lies in the hands of the public and the medical profession.

## IN MEMORIAM:

JOHN HAROLD CLEMENTS, 1902 - 1960

Doctor John Harold Clements of Juneau died suddenly at St. Ann's Hospital shortly after he developed an acute myocardial infarction at his office in the Juneau Doctor's Clinic. Intensive efforts to recussitate him including thoracotomy and two hours of cardiac massage failed.

John was born in Elmwood, Nebraska, on July 11, 1902; the son of John A. and Edith R. Clements. He attended Nebraska Wesleyan University and the University of Nebraska School of Medicine where he graduated in 1933. He was a member of Nu Sigma Nu medical fraternity. He interned for two years at Seattle's King County Hospital then started general practice at Wrangel, Alaska, in 1935. Following ten years of practice at Wrangel, he joined Dr. Joseph O. Rude at Juneau with whom he later founded the Doctors Clinic.

Dr. Clements was a member of the Alaska and American Medical Associations, of the Amer-

ican Academy of General Practice as well as President of the Alaska State Board of Medical Examiners and of the Juneau District Medical Society. During the past ten years he has been an active member of the Alaska Cancer Society, serving as president, professional delegate and chairman of the service committee. He was a member of the Board of Directors of the Alaska Heart Association and has been instrumental in obtaining modern cardiac diagnostic and treatment apparatus for St. Ann's Hospital. He also was a member of the Masonic Lodge, the Shrine Club, the Juneau Elks and Kiwanis Clubs.

Doctor John Clements was a gifted, well read and respected member of the Juneau medical community whose advice was often requested by his medical colleagues. He will be long remembered and deeply missed by all Juneau Doctors.

William M. Whitehead  
Joseph O. Rude



## *President's Page*



Two political conventions have been held. Much oratory has been thrown out over the air waves and this is only the beginning. This campaign is of great importance to all of us in organized medicine. Both party platforms have planks dealing with medical care of the aged and you can rest assured there will be many campaign promises made, all with the purpose of corralling votes. I will not presume to tell you how to cast your ballot, that is none of my business. I do hope you will read the platforms carefully, try to sort out the grain from the chaff, and be able to advise your patients if and when they discuss the issues with you. I am a firm believer that physicians should take an active part in civic affairs and now is the time for all of us to assume that part.

Elsewhere in this issue of Alaska Medicine you will find a complete listing of committees. I will admit it is a formidable list and would and should mean a lot of concerted effort by most of our members. As I went through the By-Laws and the minutes of our February meeting I found more committees had been set than I thought possible. By the time this issue comes out all chairmen and members will have received a letter concerning the committees. We hope to have a written report submitted to the annual

session, by each chairman, even if it is a note of no action. Only in that way can we record in our archives the progress of our work.

The 1961 annual meeting will be held in Sitka May 24 through 27. Your program committee will soon be making arrangements for this meeting and will welcome any suggestions for topics or speakers. Already we have many offers from speakers and soon we must sort them out and see what we can come up with in the way of a good program. We shall probably ask the Alaska Chapter of the AAGP to present the program for one of our scientific sessions. We want to present the sort of program the members want, and naturally this means you must let us know.

Following the presentation of the award to Louis Salazar as G.P. of the Year in Anchorage, Dr. Fount Richardson, President of the AAGP, suggested that in a society of our size we should select a "Physician of the Year," based on his service to our society, community and state, without reference to his status as a practitioner. I would welcome comments and nominations for this honor, the final selection to be made by a committee yet to be appointed.

Benjamin E. McBrayer, M.D.  
President, Alaska State Medical Association

# ALASKA STATE MEDICAL ASSOCIATION

## Committees Appointed for 1960-61

### STANDING COMMITTEES

As Required by By-Laws, Article VIII.

#### AUDITING AND APPROPRIATIONS

George E. Hale, M.D., 501 "L" Street, Anchorage, Alaska (Chairman)  
John C. Tower, M.D., 742 "K" Street, Anchorage, Alaska  
John I. Weston, M.D., 411 Fourth Ave., Fairbanks, Alaska

#### ARRANGEMENTS

Robert H. Shuler, M.D., P. O. Box 157, Sitka, Alaska (Chairman)  
All members of Sitka - Mt. Edgecumbe Medical Society

#### PROGRAM

B. E. McBrayer, M.D., P. O. Box 637, Mt. Edgecumbe, Alaska (Chairman)  
Philip H. Moore, M.D., P. O. Box 810, Sitka, Alaska  
Edward Spencer, M. D., P. O. Box 1048, Sitka, Alaska  
Arthur N. Wilson, M.D., P. O. Box 2577, Ketchikan, Alaska  
Robert B. Wilkins, M.D., 718 "K" Street, Anchorage, Alaska

#### VOLUNTARY HEALTH ORGANIZATION

(Term expires at close of annual session—year listed)

Helen Whaley, M.D., 742 "K" St., Anchorage, Alaska (1962), (Chairman)  
Russell C. Smith, M.D., P. O. Box 1054, Petersburg, Alaska (1962)  
Phillip H. Jones, M.D., Haines, Alaska (1961)  
Kenneth Kaisch, M.D., P. O. Box 1330, Fairbanks, Alaska (1961)  
R. Harrison Leer, M.D., P. O. Box 2597, Juneau, Alaska (1961)

#### INDUSTRIAL ACCIDENTS COMMITTEE

(Term expires at close of annual session—year listed)

Tillman Moore, M.D., P. O. Box 810, Sitka, Alaska (1965), (Chairman)  
Joseph Deisher, M.D., P. O. Box 247, Seward, Alaska (1965)  
Dwight L. Cramer, M.D., P. O. Box 547, Ketchikan, Alaska (1963)  
Henry G. Storrs, M.D., P. O. Box 993, Fairbanks, Alaska (1963)  
George B. Wichman, M.D., 718 "K" St., Anchorage, Alaska (1961)

#### CONSTITUTION AND BY-LAWS

Paul Haggland, M.D., P. O. Box 1330, Fairbanks, Alaska (Chairman)  
Peter Koeniger, M.D., 703 "L" St., Anchorage, Alaska.  
Henry Wilde, M.D., 188 South Franklin St., Juneau, Alaska

### LEGISLATIVE COMMITTEE

William Whitehead, M.D., 188 South Franklin Street, Juneau, Alaska (Chairman and Legislative Sec'y)  
R. Holmes Johnson, M.D., P. O. Box 766, Kodiak, Alaska  
Milo H. Fritz, M.D., 1027 Fourth Ave., Anchorage, Alaska  
Philip H. Moore, M.D., P. O. Box 810, Sitka, Alaska  
Arthur J. Schaible, M.D., P. O. Box 1330, Fairbanks, Alaska

### EDITORIAL BOARD

(Term expires at close of annual session—year listed)

Philip H. Moore, M.D., P. O. Box 810, Sitka, Alaska\*\*  
Donald E. Tatum, M.D., P. O. Box 1330, Fairbanks, Alaska (1964)  
John B. Fenger, M.D., P. O. Box 133, Homer, Alaska (1964)

\*\*\*To unexpired term of Hugh Fate (1963)

### SPECIAL COMMITTEES

By Vote of 1960 Annual Session

#### INVESTIGATION AND STUDY OF ALASKA MEDICAL PRACTICE ACT

Jack W. Gibson, M.D., 188 So. Franklin St., Juneau, Alaska (Chairman)  
Michael F. Beirne, M.D., 835 "I" St., Anchorage, Alaska  
William J. Mills, Jr., M.D., 742 "K" St., Anchorage, Alaska  
Louis Salazar, M.D., P. O. Box 359, Ketchikan, Alaska  
Joseph A. Tedesco, M. D., Times Building, Cordova, Alaska

#### MEDICAL RECORDS—Patient Confidence Relationship

Joseph Ribar, M.D., P. O. Box 1330, Fairbanks, Alaska (Chairman)  
Henry G. Storrs, M.D., P. O. Box 993, Fairbanks, Alaska (Recorder)  
Farriet C. Jackson, M.D., Bethel, Alaska  
Russell C. Smith, M.D., P. O. Box 1054, Petersburg, Alaska  
Ralph W. Carr, M.D., P. O. Box 359, Ketchikan, Alaska  
William Ivy, M.D., 423 "D" St., Anchorage, Alaska

#### FEASIBILITY STUDY-TRANSFER ALASKA NATIVE HEALTH SERVICE TO ALASKA DEPARTMENT OF HEALTH AND WELFARE

Joseph Shelton, M.D., 330 "H" St., Anchorage, Alaska (Chairman)  
Ralph Carr, M.D., P. O. Box 359, Ketchikan, Alaska  
James A. Lundquist, M.D., P. O. Box 1382, Fairbanks, Alaska  
Robert Whaley, M.D., 423 "D" St., Anchorage, Alaska  
Edward Spencer, M.D., P. O. Box 1048, Sitka, Alaska



## OTHER STANDING COMMITTEES

### SCHOOL HEALTH COMMITTEE

Joseph Deisher, M.D., P. O. Box 247, Seward, Alaska  
(Chairman)  
John Tower, M.D., 742 "K" St., Anchorage, Alaska  
Robert H. Shuler, M.D., P. O. Box 157, Sitka, Alaska  
Joseph O. Rude, M.D., P. O. Box 2627, Juneau, Alaska  
J. Bruce Keers, M.D., P. O. Box 766, Kodiak, Alaska

### MENTAL HEALTH COMMITTEE

J. Ray Langdon, M.D., 746 "F" St., Anchorage, Alaska  
(Chairman)  
Virginia Wright, M.D., 529 "I" St., Anchorage, Alaska  
Edward Spencer, M.D., P. O. Box 1948, Sitka, Alaska  
Chester L. Schneider, M.D., Glenallen, Alaska  
E. W. Gentles, M.D., P. O. Box 185, Seward, Alaska

### COMMITTEE ON AGING

C. E. Chenoweth, M.D., Mt. McKinley Building, Anchorage, Alaska (Chairman)  
Arthur N. Wilson, M.D., P. O. Box 2577, Ketchikan, Alaska  
A. Holmes Johnson, M.D., P. O. Box 766, Kodiak, Alaska

### LIBRARY COMMITTEE

William O. Maddock, M.D., 423 "D" St., Anchorage, Alaska (Chairman)  
Joseph Deisher, M.D., P. O. Box 247, Seward, Alaska  
Rodman Wilson, M.D., 718 "K" St., Anchorage, Alaska

## VOCATIONAL REHABILITATION COMMITTEE

Henry Wilde, M.D., 188 So. Franklin St., Juneau, Alaska (Chairman)  
Francis J. Phillips, M.D., 2220 E. Northern Lights Blvd., Anchorage, Alaska  
John I. Weston, M.D., 411 Fourth Ave., Fairbanks, Alaska

### EMERGENCY MEDICAL CARE—CIVIL DEFENSE COMMITTEE

C. G. St. John, M.D., 501 "L" St., Anchorage, Alaska (Chairman)  
Lawrence I. Dunlap, M.D., P. O. Box 1382, Fairbanks, Alaska  
C. C. Carter, M.D., 188 South Franklin St., Juneau, Alaska  
Clarence C. Bailey, M.D., Palmer, Alaska  
Vernon A. Cates, M.D., 423 "D" Street, Anchorage, Alaska  
J. Bruce Keers, M.D., P. O. Box 766, Kodiak, Alaska

Chairmen of committees are requested to contact their members for ideas, suggestions, and assistance as it becomes necessary. Each chairman will be requested to submit a written report, to the President and Secretary-Treasurer, before the next annual session.

## UNIVERSITY OF WASHINGTON HOSPITAL

The University Hospital opened its doors to patients on May 4, 1959. At the time of this writing, approximately 200 of the total 320 beds in the hospital are open and more nursing units are to be opened as the demand develops. The University Hospital is a teaching and research facility of the University of Washington Division of Health Sciences. It is an advanced training center for physicians and members of other associated health professions. It is also a center for continuing education for those who are already in practice and a hub of patient-centered research activity. The hospital facilities are used to train dentists, medical technologists, nurses, occupational therapists, pharmacists, physical therapists, and other health team members in addition to physicians.

### Hospital Services

There are eight major clinics for patients not requiring bed care who are seen upon referral and by appointment. For each visit, the patient pays for necessary x-rays, laboratory examinations, drugs, etc. In addition, he pays a clinic charge which covers overhead costs such as clerical and nursing services and heat and light.

Patients are accepted from all parts of Washington and the Northwest. More than half of the patients come from outside the greater Seattle area. To date 90 patients have been referred to the hospital from the state of Alaska.

### The Referral Policy

The hospital operates under a referral policy in order (1) to make its facilities available to those who most need them, and (2) to insure that

its patients meet the needs of the teaching program.

Under this policy, a physician may write a letter of referral for any patient under his care who in his judgment could be helped by the special skills and facilities at the hospital. When the patient is accepted, a faculty member of the School of Medicine then becomes his attending physician during his stay at the hospital. At the conclusion of his treatment, the patient is sent back to the referring physician with a report on the diagnosis, the treatment provided, and recommendations for future care.

### **Major Financial and Administrative Policies**

The hospital is supported by a combination of legislative appropriation and payments by patients and their sponsors. The value and effectiveness of a teaching hospital depend upon the ability of the hospital to admit unusual or exceptional cases which help the teaching program. Many such patients have already experienced a long period of illness, resulting in exhaustion of financial resources. Because many patients have limited ability to pay, the total income from patients must necessarily be considerably less than the total operating budget. Currently, legislative funds constitute 40 per cent of the operating budget; income from patients and sponsors amounts to 60 per cent. This is an exceptionally low proportion of state support in comparison with teaching hospitals elsewhere.

The hospital budget includes neither faculty salaries in the Health Sciences Division nor research costs. They are included in the budgets of the Schools of Medicine, Dentistry, or Nursing, or are met by research grants. Costs stemming from laboratory tests, consultations, etc., that are required purely for research purposes are not charged the patient.

Hospital charges are set on the basis of actual cost studies. Item for item, they are similar to those at other large Seattle hospitals.

There is no charge for the professional services of faculty physicians unless the patient is able to pay his hospital costs in full. When professional fees are charged such fees are set by the faculty physician, using a standard fee schedule as a guide, and may be lowered or canceled

when the physician feels the regular fee would work a hardship. Charging and regulation of fees are under the supervision of the Dean of Medicine.

In order for the hospital to achieve a level of 60 per cent self-support, as required by the present level of state support, it is necessary to evaluate each patient's ability to pay when he is referred.

Patients are charged at regular hospital rates unless there is evidence that this would work undue financial hardship. Except in very unusual circumstances, part-pay patients must be able to meet at least 40 per cent of the anticipated costs of care either at the time of discharge from the hospital or through a 24 month payment plan as described below.

If the patient does not have sufficient cash or insurance coverage to meet hospital costs, and is accepted for care, the Hospital Credit Manager works with him on a payment plan. A "monthly basic expense schedule" similar to that of the Department of Public Assistance of the State of Washington is used to determine that part of the patient's income required for basic living needs. Any unusual expenses or obligations are added to this amount. The difference between this total and the patient's monthly income is considered his potential to pay. If the patient can cover his hospital costs in 24 monthly payments, he is considered "full-pay" and charged standard rates. If not, the hospital bill is discounted as the individual's circumstances indicate.

Most forms of hospital insurance, as written by commercial insurance companies, and most company-union health-and-welfare plans, provide the same benefits in the University Hospital as in any other hospital.

In addition, private agencies such as The National Foundation, The Easter Seal Societies, and others, finance care for patients for whom they have assumed responsibility.

We sincerely hope that mutually satisfactory arrangements can continue to be worked out so that both the physicians of the State of Alaska and their patients and the teaching programs at the University of Washington can benefit.

JOHN R. HOGNESS, M.D.  
Seattle, Washington



# Familiar Faces . . .

These are the drug and medical equipment company representatives who visit us in Alaska. Always friendly, always helpful, these salesmen are an integral part of the American medical scene, wherein drug and equipment houses compete for favor among physicians by constantly striving to better their products. Long may the system—and such men as these—survive! Pictures were taken at the Alaska State Medical Association meeting in Anchorage in February 1960.



From left to right: Gordon Munger, Bellevue, Washington, Parke, Davis & Co.; Clyde Place, Seattle, Washington, E. R. Squibb & Sons; Temple Naylor, Portland, Oregon, Wyeth Laboratories; Max Countryman, Seattle, Washington, Merck Sharp & Dohme.

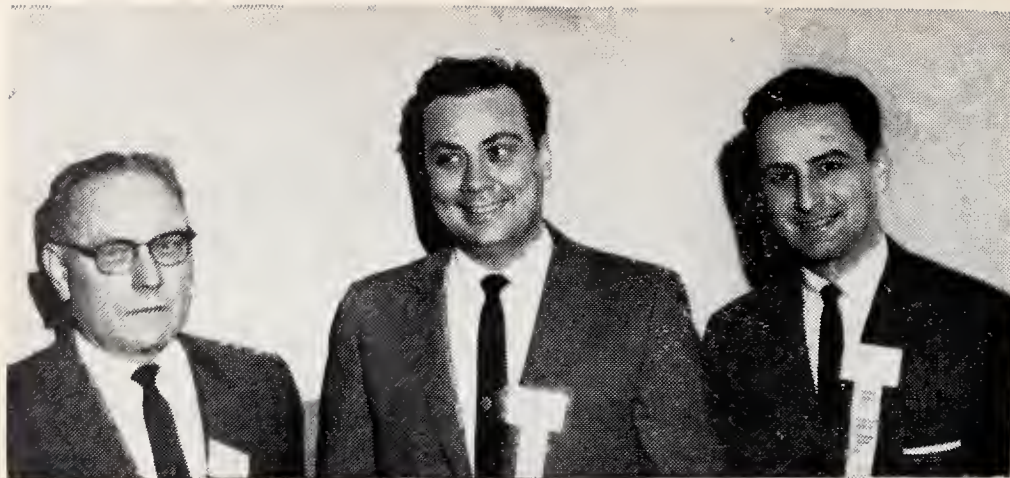


From left to right: C. V. Kirk, Oakland, California, McNeil Laboratories; Martin Rigney, Anchorage, Alaska, Electro-Medical Sales; L. B. Lang, Spokane, Washington, Western X-Ray Co.; Joe Mullins, Anchorage, Alaska, The Upjohn Co.

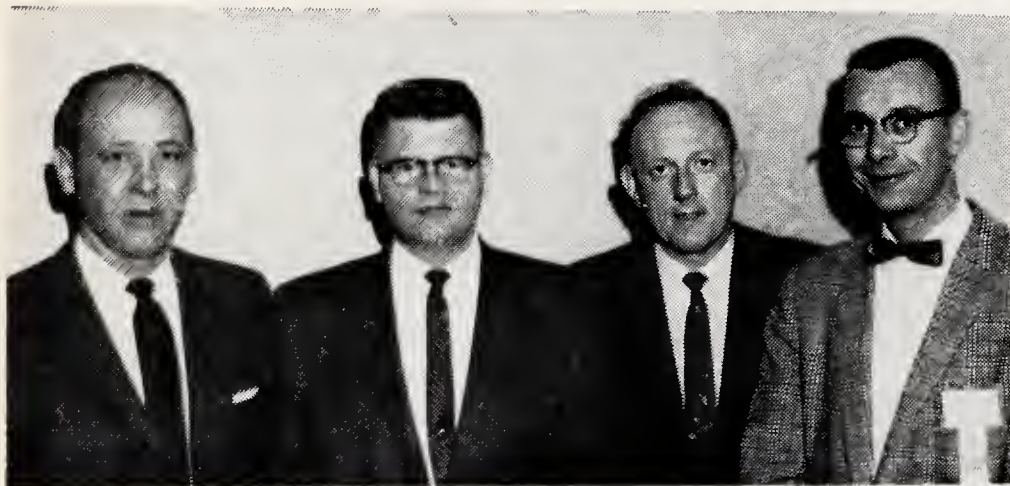


From left to right: Leonard "Barney" Barnes, Anchorage, Alaska, Eli Lilly & Co.; Paul Tousignant, Anchorage, Alaska, Pfizer Laboratories; Paul Roberts, Seattle, Washington, Mead Johnson & Co.; Chuck Schmoll, Seattle, Washington, Ortho Pharmaceutical Corp.





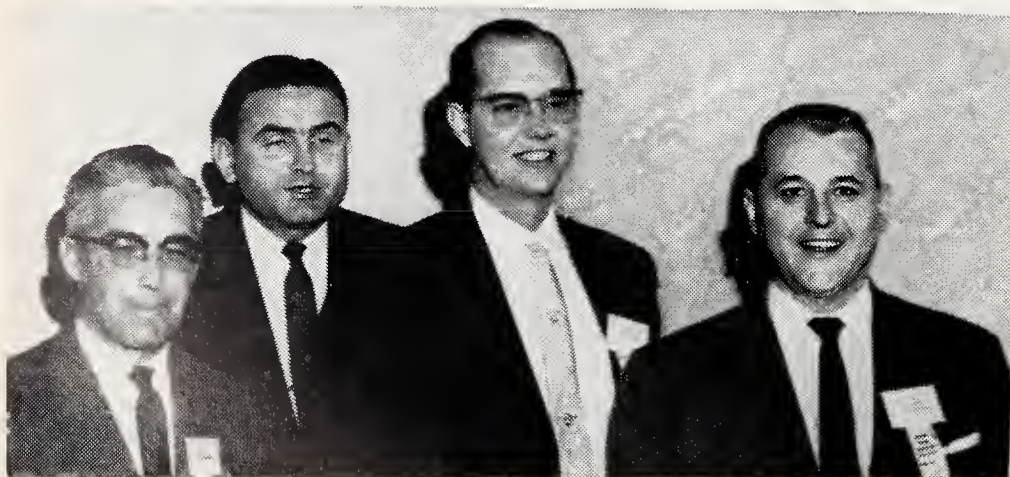
From left to right: Birger "Marty" Martinsen, Seattle, Wash., Picker X-Ray Corp.; Darrell Hofferber, Anchorage, Alaska, Lederle Laboratories; Leonard Francoeur, Anchorage, Alaska, Don Baxter, Inc.



From left to right: John McKinney, Tacoma, Washington, Schering Corp.; Larry Lyon, Alderwood Manor, Washington, A. H. Robins Co.; Bill Scott, Seattle, Wash., Warner-Chilcott; John Christensen, Seattle, Wash., Geigy Pharmaceuticals.



From left to right: Chuck Phillips, Lynwood, Wash., Eaton Laboratories; Gene Lombardi, Tacoma, Wash., Boyle & Company; Joe Huhn, Seattle, Wash., Burroughs Wellcome & Co.; W. E. "Don" Donaldson, Oakland, Calif., Ciba Pharmaceutical Products.



From left to right: Norm Lough, Edmonds, Washington, Ayerst Laboratories; Bob Surber, Seattle, Washington, A. S. Aloe Co.; Cal Bortel, Port Orchard, Washington, Abbott Laboratories; Russ Carter, Seattle, Washington, Biddle & Crowther Co.



# ALASKA ASSOCIATION OF NURSE ANESTHETISTS

For many years the nurse anesthetists in Alaska felt that they were step-children of the national organization since they had no state organization. Seventeen members in Alaska expressed an interest in developing this group de-

ing was devoted to the study and adoption of the proposed by-laws, and the second session to the election of officers.

Officers elected are: President, Electra Joiner; Vice President, Leona Connell; Secre-



Left to right: Doris Bunnell, Constance Merims, Norma Hall, Leona Connell, Electra Joiner, Betty Lindemuth, Sylvia Kellinger

spite the difficulties of travel and lack of relief replacements in the remote areas for attending meetings. With Anchorage serving as a nucleus, the members thought it feasible to organize the 49th state.

On June 17th the Charter and Organizational meeting of the Alaska Association of Nurse Anesthetists was held in Anchorage with eight members in attendance. The first session of the meet-

tary-Treas., Constance Merims. Quarterly meetings were planned with an annual meeting to be held in July each year.

The Alaska State Association is the Fifty-first affiliating with the American Association of Nurse Anesthetists and holds the distinction of being the only state organization whose affiliation date so closely coincides with the year of statehood.



## THE NINTH OF JULY

by Marshall A. Simpson, M.D.

'Twas the ninth of July, when all thru the house  
Not a creature was stirring, except for a mouse.  
Mother's clothes had been gathered and packed with  
great care,  
In hopes that her contractions soon would be there.

Pamela was nestled all snug in her bed,  
While visions of a brother danced in her head.  
And Barbara in her P.J.s, and I in my shorts,  
Had been sleeping so quietly, except for her snorts,

When all of a sudden my wife was complaining  
I sprang from the bed to see what was paining.  
And down to her bottom I went for a peek  
To quickly see lips that were not cheek to cheek.

The sun in Alaska had risen already  
While a gentle breeze made leaves shake like  
confetti,  
When what to my wondering eyes should appear,  
But a bulging membrane, and a tossle of hair,

With marked dilatation, and descent so quick  
I knew in a moment it wasn't St. Nick.  
More rapid than eagles the pains they came,  
And she whistled and shouted, and I called  
my wife's name.

"Now Barbara behave, through your mouth please  
breathe,  
This isn't the time or the place to heave."  
To the top of the bed, almost to the floor,  
She grunted and groaned as if she were sore.

She knew that the time was not very far away.  
Listen closely my sweet, to what I must say:  
Pull on your pants, to the office let's run,  
Do not deliver here my small son."

So very quickly she dressed, and went for the door  
Alas! Another hard pain; she could go no more.  
Back to bed with wife! What else could I do?  
This baby was coming, I had to see it through.

No bag had I, nor medical kit.  
No tools to work with, how could I do it?  
Ah! Here is some alcohol, works better than soap,  
Sterilizes completely, at least I hope.

Episiotomy? No! The head's now through.  
A dilated perineum will have to do.  
The membranes they bulged, like a little round belly  
When she strained down hard, they shook like  
they were jelly.

The water it broke, and it covered the sheet  
The head fast descended, then the body, then feet;  
I grasped them so firmly, and gently held them high,  
And the little infant let out a very long cry.

The babe was thin, not plump, just looked like an elf.  
Was all really well, I quickly prayed to myself.  
A wink of the eye, and a twist of the head,  
Soon gave me to know, I had nothing to dread.

I said nary a word, but went straight to work  
Cleaned up the baby; and taking the place  
of the stork,  
After helping my wife to the Ford machine,  
The wee one I presented to Pamela Jean.

She sprang to her feet, and said: "Where is the other?  
I don't want a sister, I want a baby brother!"  
But I heard her exclaim as we left the driveway  
"Happy birthday to Marsha Lynn, and to all  
good-day."



# *Muktuk Morsels*

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

## **GENERAL**

The third annual Alaska Heart Clinic will be held in Anchorage September 19, 20 and 21 and in Fairbanks for the first time on September 22. The clinic is being sponsored jointly by the Alaska Heart Association, the Alaska Department of Health and the U. S. Public Health Service. The consultant team will have the same participating members as last year and will include Herbert Abrams, M.D., radiologist, and Herbert Hultgren, M.D., internist, both from Stanford University Medical School in Palo Alto, California; and Frank Gerbode, M.D., cardiac surgeon, and Saul Robinson, M.D., pediatric cardiologist, from the new Presbyterian Medical Center, formerly the Stanford University Hospital, San Francisco, California. Because of the tremendous demand for the services provided by these clinics and of the limited amount of clinic time, the emphasis will be on patients with either congenital or acquired cardiac lesions that might be benefited by corrective cardiac surgery. The patients may be referred to these clinics by contacting Mrs. Evelyn Scott, Maternal and Child Health Coordinator for the Division of Health, Department of Health and Welfare, 327 Eagle Street, Anchorage; Mrs. Fern Farr, Maternal and Child Health representative in Fairbanks; or Donald E. Tatum, M.D. of Fairbanks. All physicians are invited to attend both the clinical lectures each morning at 8:00 which will precede the patient clinics which begin at 9:00 A.M. The Anchorage clinic will be held in the Alaska Native Service Hospital, and the Fairbanks sessions at Ladd Air Force Base Hospital.

The Surgeon General's Advisory Committee on Indian Health met for the first time in Alaska in Anchorage on August 2 and 3. The nine members represented various sections of the country and Mr. Robert Atwood, publisher of the Anchorage Daily Times, served as the Alaskan representative. Other members of this committee were Dr. Robert Neff Barr, Secretary and Executive

Officer, State Board of Health, Minneapolis, Minnesota; Dr. Fred T. Board, Director, Division of Epidemiology, State Board of Health, Raleigh, North Carolina; Dr. Alexander H. Leighton, Professor of Clinical Psychiatry, Cornell University; Mr. Walter W. McDonald, Member, Confederated Salish & Kootenai Tribal Council, Dixon, Montana; Mr. Floyd E. Maytubby, Governor of the Chickasaw Nation, Oklahoma City, Oklahoma; Mr. James Perkins, Managing Director, National Tuberculosis Association, N. Y.; Dr. Raymond F. Peterson, Murray Clinic, Butte, Montana; Mrs. Annie Wauneka, Chairman, HEW Committee, Navajo Tribe, Window Rock, Arizona. In addition, a number of officials of the Department of Health, Education and Welfare were present, including Dr. James V. Lowry, Assistant Surgeon General, Chief of the Bureau of Medical Services; Dr. James A. Shaw, Assistant Surgeon General, Chief of the Division of Indian Health, and Dr. Mynie G. Peterman, Special Consultant in Pediatrics, Division of Indian Health and former Professor of Pediatrics at Marquette University, Milwaukee, Wisconsin, visited most of the field hospitals along with other members of the group in order to evaluate the present problems and make recommendations for the future care of the Alaskan native.

Distinguished medical visitors in Alaska during August included Dr. Lewis J. West, Professor of Psychiatry at the University of Oklahoma and National Consultant in Neuro-psychiatry to the Air Force, who met with the Anchorage Mental Health Group to discuss the future plans for the mental health in Alaska.

The 11th Alaska Science Conference met in Anchorage from August 29 to September 2, 1960. Dr. A. E. Maurant of the Blood Research Laboratory at the Lister Institute in London, England and Dr. Bruce Chown, Professor of Pediatrics, University of Manitoba and Director of the Blood Group Reference and Research Laboratory, Winnipeg, Manitoba, Canada, participated in the sessions. Papers in the section on Medi-

cine and Public Health were given by Doctors William J. Mills and Robert Whaley on the relation of Serum G-O-transaminase to severity of freezing injury; and by Dr. Francis Phillips on a preliminary report about patients under treatment for tuberculosis in remote regions.

The National Foundation is increasing the scope of its program to include the care of selected patients under 19 years of age with rheumatoid arthritis and with congenital defects of the central nervous system such as meningo-myeloceles or hydrocephalus. Medical advisory boards in the various communities will screen the patients who would benefit most from such help. As part of their program to promote interest in health careers among high school and college students, the National Foundation has set up a series of scholarship grants in the various health fields, including medicine, nursing, physiotherapy, etc. Unfortunately, because of the few applications made in Alaska a number of these generous scholarships, including the one for medicine, were not awarded in this area this past year. Information may be obtained from Mrs. Robert (Tillie) Reeves, 209 Eleventh Avenue, Anchorage.

### LOCAL NEWS

**KETCHIKAN:** Dr. James A. Wilson has joined his father, Dr. Arthur Wilson in practice at Ketchikan. He was graduated from the University of Oregon Medical School in 1952 and served an internship at the Evanston General Hospital in 1952-53, 10 months of pathology residency in 1953-54, and two years in the Strategic Air Command as a flight surgeon in 1954-56; four years as a surgical resident at St. Vincent's Hospital, Portland, Oregon to qualify for the American Board of Surgery.

Medical meetings were attended by Dr. Ralph W. Carr, who went to the Idaho State Medical Meeting, and by Dr. Phyllis Smith, who attended the General Pediatrics Conference sponsored by the UCLA Medical School, at Lake Arrowhead, California.

**SITKA:** Dr. David Sparling, who has served as Pediatrician at Mt. Edgecumbe since 1954, resigned as of August 15 and is planning to go into private pediatric practice, probably somewhere in the Tacoma, Washington area. He served as school physician to the Mt. Edgecumbe High School and did consultative pediatrics under the

auspices of the Alaska Department of Health throughout many of the communities in Southeastern Alaska.

Dr. Philip Moore piloted his newly refitted cabin cruiser from Seattle to Sitka in May.

**SKAGWAY:** Skagway has a new physician, Dr. David Tammann, a graduate of the University of Heidelberg, who formerly lived in Washington.

**JUNEAU:** There have been many changes in this city during the past few months. Dr. Harry V. Gibson, former Director of the Division of Health of the Alaska Department of Health and Welfare, resigned and returned to Great Falls, Montana. Dr. John B. K. Smith, Chief of the Mental Health Section, resigned and is in Marlboro, New Jersey at the New Jersey State Hospital. Dr. David Duncan, who is the Chief of the Maternal and Child Health Division, is serving as the acting Director of the Division of Health and Dr. Homer F. Ray, Jr., as the acting Clinical Director of the Mental Health Section.

Dr. William W. Ward, a pediatric surgeon who has worked with Doctors Clements and Rude for the past eighteen months, has returned to the east coast, and Dr. Rude has been joined by Dr. Edward Tras, a general physician from Montreal, Canada.

Two new physicians have joined the Juneau Clinic. Dr. Jack K. Lesh, a 1949 graduate of Columbia Medical School, will specialize in obstetrics and general practice. Serving as general surgeon will be Dr. Robert R. Smalley, a 1953 graduate of McGill University and a native of Portland, Oregon. He spent four years as a Fellow in surgery at the Mayo Clinic.

**VALDEZ:** After several years without a physician, Valdez is now being served by Dr. Clarence Davis, Jr., formerly County Health Officer of Amador County, California, where he was also in general practice. He is a 1956 graduate of the University of Tennessee. He received his medical training at the University of Wisconsin General Hospital in Madison, at the Chicago Maternity Center, and at the Milwaukee County Emergency Hospital, and in pathology at the University of Tennessee. He drove up the Alaskan Highway with four children, his wife and a 21 ft. cabin cruiser, with a pick-up and a 14 ft. trailer. He will do private practice in Valdez and serve as the attending physician for



medical and surgical problems at the soon to be completed Valdez Hospital for the care of custodial mental patients. Initially there will be about 75 patients in this new installation. In addition there is a 15-bed Valdez Community Hospital serving this community of approximately 700 residents.

**CORDOVA:** A locum tenens for Dr. Tedesco was served by Dr. Robert P. Billings, a graduate of Tufts Medical School, Boston, Massachusetts, who served an Obstetrics, Internal Medicine, and Pediatrics residency at Washington, D. C. General Hospital. He is a member of the American Academy of General Practice and has been in private practice for the past seven years in New Hampshire. He will join Dr. Charles St. John of Anchorage in practice sometime this Fall.

**KODIAK:** Dr. A. Holmes Johnson of Kodiak has retired after a long and active practice and plans to travel extensively.

**SEWARD:** Dr. Paul Isaak is commuting back and forth between Soldatna and Seward in his own airplane. He spend two days at Soldatna and will soon increase this to three. He is homesteading approximately four miles out of Soldatna. He has had to carry an occasional emergency patient from Soldatna to Seward for hospitalization.

Dr. Joseph B. Deisher is Chairman of the School Health Committee for the Alaska Medical Association. He reports that the average daily census at the Seward General Hospital continues to be considerably below that necessary to keep the hospital in an economically sound position.

**ANCHORAGE:** A number of new physicians have entered practice in Anchorage this summer. They include Dr. James S. Cheatham, a 1949 graduate of Harvard Medical School, who has been a psychiatrist with the U. S. Air Force from 1949 to 1960. He received his training at the University of California in San Francisco and was Chief of Neuro-psychiatry at Elmendorf Air Force Base from 1958-1960.

Since his resignation from the Mental Health Section of Alaska Department of Health, Dr. J. Ray Langdon has entered private psychiatric practice. He has been appointed the psychiatric consultant to the Anchorage Alaska Native Service Hospital and to the Alaska Crippled Children's Association, and has been very active in the local Mental Health Association.

Dr. Theodore Shohl, a 1950 graduate of the University of Pennsylvania, is doing general surgery. He was a surgical resident at the University of Pennsylvania from 1951 to 1956 and was formerly associated with the surgical staff at Wadsworth Veterans' Administration Hospital in Los Angeles and was Instructor in Surgery at UCLA Medical School. He is Board certified. His wife, Rosalie, a 1951 graduate of the University of Pennsylvania, is an anesthesiologist, and served on the staff of the Philadelphia General Hospital and the Wadsworth Veterans' Administration Hospital. They have three young children.

Dr. George Wichman has joined the Anchorage Clinic as an orthopedist. He was formerly associated with Dr. William J. Mills.

Dr. Francis J. Phillips is the Medical Consultant to the newly opened Goodwill Industries Rehabilitation Center in the old Alaska Railroad Building. In addition he will serve as the Medical Consultant to the Anchorage school district, which will provide its own school nurses for the first time this year. He is also the school physician for the new Alaska Methodist University.

Data compiled by Doctors William J. Mills and Robert Whaley is listed in the Antarctic Manual, the second edition published in 1960 by the U. S. Navy, as "must" reading for explorers and for cold weather medical specialists.

The annual Meeting of the American Medical Association, Miami, Florida, was attended by Dr. Milo Fritz as the Alaska Medical Association's representative.

The cornerstone of the new 160 bed Providence Hospital was set in May of 1960 in the Goose Lake area. Work has started on the new Alaska Mental Health Hospital nearby. Neither hospital will be completed before 1962 or 1963. Both are adjacent to the new Alaska Methodist University campus.

Skin diving has become a new sport among many Anchorage physicians and their wives, including Dr. William Ivy's family.

**PALMER:** A recent trip to Seattle was taken by Dr. Clarence C. Bailey and his wife, while the latter underwent surgery at the Virginia Mason Hospital.

**GLENALLEN:** Dr. Chester L. Schneider has rejoined Dr. James S. Pinneo at the Faith Hospital in Glenallen after a year of post-graduate training in Pennsylvania.

FAIRBANKS: The old wing of St. Joseph's Hospital is being torn down. A new surgery wing has been completed with one minor surgery and two major surgery rooms.

Dr. Lawrence Dunlap was a participant in the recent Marathon Race on the Chena River. Unfortunately his 36-inch motor was in an accident, but he was not hurt.

BETHEL: The annual meeting of the American Academy of Pediatrics in Chicago will be attended in October by Dr. Harriet C. Jackson, who continues as Bethel's mayor.

## NEWS OF GOVERNMENT SERVICES

### UNITED STATE PUBLIC HEALTH SERVICE

There have been many changes since the first of July. Dr. Glen Benjamin Van Atta, formerly of the Dayton, Ohio, Veterans' Administration Hospital, replaced Dr. Thomas West as Chief of Surgery. For the first time the Alaska Native Service Hospital will have a pediatrician, Dr. Dwight D. Tuuri, who arrived via the Alaskan Highway from the Children's Hospital in Cincinnati, Ohio. The new Chief of Medicine will be Dr. Gilbert P. Blankenship, who arrived from the Charity Hospital in New Orleans, Louisiana,

to replace Dr. Ruth Coffin, who is now a field health physician serving the Aleutian Chain and the villages between Anchorage and that area. The new physician at the Point Barrow Hospital will be Dr. Jo Bernard Smalley, from the Santa Clara County Hospital in San Jose, California.

After 15 years with the Public Health Service in Alaska where he served as the Medical Officer in Charge of the hospitals in Tanana, Point Barrow and Kotzebue, and more recently as Deputy Area Medical Officer in Charge of the Field Hospitals, Dr. Edwin S. Rabeau, will attend the School of Public Health, University of California in Berkeley for the next year to earn his Master's Degree in Public Health.

New personnel at Mt. Edgecumbe Hospital include Dr. Charles Weems and Dr. Sanford Summers. Dr. Winsor Morrison left at the end of May to take a residency in Ear, Nose, and Throat at the Staten Island Public Health Hospital. Dr. Kenneth Richardson is taking an ophthalmology residency in Pennsylvania.

New ward surgeons at the Anchorage Public Health Service Hospital include Dr. James A. Baldauf from St. Luke's Hospital in Cleveland, Ohio, and Dr. Charles F. Tschopp, who arrived from the Public Health Service Hospital at Norfolk, Virginia.

## CIVIL DEFENSE

Disaster proof **your** home by fulfilling these requirements:

Know **warning signals**.

Know **community plan** for emergency action.

Select family **shelter area**.

Have plans for emergency **cooking, heating and lighting**.

Know what to do about **radioactive fallout**.

Have two weeks' supply of **food and water**.

(Be prepared to purify unsafe water.)

Have a **radio** which is independent of commercial power.

Know **CONELRAD** stations. Be prepared to listen to survival instructions.

Have a **First Aid Kit**.

Have emergency **clothing and blankets**.

Have **recreational and morale supplies**.

Do fire-preventive housekeeping.

Have emergency **fire fighting plans and equipment**.

Have emergency **sanitation** plans and preparations.

Have evacuation plans in accordance with community plan.

Have **family** familiar with emergency plan.

Maintain preparation current with State and local plans.



# *Woman's Auxiliary News*

*A news column compiled by*

**Mrs. Vernon Cates**

## **PRESIDENT'S MESSAGE**

Summer time is time for vacations and I know I'm not the only one who has been enjoying one. I hope everyone has had a most pleasant summer.

I had a very pleasant visit in Fairbanks with Marg Haggland and Dorothy Ribar. In Anchorage I had the pleasure of having lunch with Mary Phillips and talking about Auxiliary doings. I am just now getting some of the vital details on what Chairmen are needed and who our members are, so don't be too surprised if some of you receive a letter from me asking you to be on one committee or another. Please don't let me down.

From the activity in the background (men's group) it sounds as if the coming Annual Meeting in Sitka will be one which you won't want to miss. As yet plans are indefinite, but have real promise. Make your plans now to be here on May 24-27.

Before the next issue of Alaska Medicine is printed, we, for the first time in Alaska, will have the opportunity and privilege of voting for a President. Let me urge you to read and study the platforms of both parties. Many of the issues are very important to our husbands and organized medicine. We should attempt to be well informed and be able to clearly discuss all issues. Charges and countercharges, promises and accusations will resound over the air and T.V. waves. Only by careful study can any of us determine the way we should vote. The party we are interested in today is the one that can do best for the medical profession. We shall each have to determine our way of voting.

I still would like to hear from you about your desires for the Auxiliary.

## **ARE YOU FULLY INFORMED?**

It is so often assumed that wives of medical doctors are well-informed individuals and are always ready to discuss affairs of the day. These affairs might concern the medical care of the aged, legislation related to topics both medical and socio-economic, insurance, relative costs of hospitalization, traffic accident control, school health, and problems related to the education of the handicapped. This is indeed a large order, but as individuals we can accomplish a great deal. The public is eager to understand these and other problems allied to medicine. An auxiliary member can be of inestimable help to the local society and to the medical profession if she understands and has a knowledge of the current medico-economic problems.

How can we become better informed so that we might more knowingly present the facts? We have an excellent opportunity to secure timely information by reading the weekly or monthly publications that are sent to our husbands. So often these publications are delivered to the office and we do not see them at home. It is our **personal responsibility** to ask our husbands to bring home the AMA Journal, our State Journal, Scope and Medical News, just to mention a few.

If we are to do our part then we must have a clearer understanding of current affairs and do everything possible to promote better public relations through helping the non-medical public know the truth.

## A POSITIVE AMA APPROACH

Dr. Louis M. Orr, President of the AMA, issued a statement on May 5, 1960, setting forth a long-awaited "positive program" for the health care of the aged. Following are excerpts from his text:

"The Administration proposal is based on the false premise that almost all persons over 65 need health care and cannot afford it. This is not a fact. The truth is that a majority of our older people are capable of continuing a happy, healthy, and in many cases productive life. Of the more than 15 million persons in the nation over 65, only 15% are on old age assistance; and an undetermined number, although able to finance other costs, find it difficult to withstand the additional burden of the cost of illness. It is for these people that something should be done. Neither the bill Forand advocates nor the Administration proposal are tailored to meet these problems.

### Recommendations Listed

1. Better organized programs and improved preventative medical care for the Needy Aged—those now receiving assistance.
2. For the Near-Needy, those who can meet ordinary living costs but cannot pay for health care costs, the AMA supports a state-administered program of federal grants, to liberalize existing programs as determined locally.
3. Better Nursing Home facilities. The AMA supports federal grants through the Hill-Burton mechanism for new nursing home additions to existing hospitals. The AMA supported the recent act providing for government guaranteed loans to proprietary nursing homes.
4. Voluntary Health Insurance to meet the needs of the aged for long-term nursing home care.
5. Expand Home Nursing Care programs.
6. A basic change in the Attitude Toward the Aged. Eliminate compulsory retirement and permit voluntary change of work.
7. Health Education for the aging.
8. Maintain Purchasing Power of fixed pension and annuity benefits.

Sensible, economical health care programs for the aged that preserve freedom at the same time that they promote security must necessarily be limited to support for the needy aged. We must remember that old people, like all other age

groups, have no desire for a handout. Let us rather help the aged to help themselves.

The Forand bill did not come out of committee, but the problem of medical care for citizens over 65 years of age remains a political football. A series of 15 or more bills, both better and worse than the Forand bill, have been proposed by both Republicans and Democrats.

Meanwhile, as an auxiliary, we can help best by keeping informed and informing others of what is being done in Alaska for the aged citizens—and to impress upon the unwary the dangers of socialized medicine toward which any government control is a wedge. We can also do what we can to help this group of citizens both individually and through state-wide programs for the aged.

Helene L. McBrayer

## AUXILIARY NEWS

### Anchorage

The Anchorage Auxiliary held its last meeting in May, before discontinuing for the summer months. Luncheon at the Club Paris was followed by a short business meeting at which time plans for the ensuing year were discussed.

A new trio of consultants from the Medical Society have been appointed; these being Dr. Betsy Tower, Dr. Louise Ormond, and Dr. Virginia Wright.

A committee was appointed to investigate the possibility of sending **Todays Health** to all of the Anchorage schools.

The Lederle Symposium was once again held in Anchorage in June, and the wives of the physicians were also included in plans of the day. A game dinner for all guest speakers, their wives, and hosts was held at the home of Drs. Robert and Helen Whaley on the evening of the Symposium.

A delightful luncheon was enjoyed by the wives at Forest Park Country Club, followed by an evening reception at the Chart Room on Saturday. Mrs. William Mills served as Anchorage hostess.

Mrs. Carl E. Bagley of Ann Arbor, Michigan, accompanied her husband, Professor of Orthopedics at the University of Michigan, who came as a guest speaker. Also attending were Dr. and



Mrs. Alfred Gelhorn. Dr. Gelhorn, Professor of Medicine at Columbia University, is also Chief of Delafield Hospital, a cancer research center.

#### **Fairbanks**

News of the Fairbanks Auxiliary is that we have had two meetings since the first of May, both of them dinner meetings held on the regular Medical Society meeting nights. (We met separately, though). Two new members have joined the Auxiliary. Mrs. C. T. Marrow, who is a former member, rejoined when her husband returned to the Fairbanks Clinic. Mrs. David Bluestein, whose husband is a Captain stationed at Eielson Air Force Base, also associated with the Fairbanks Auxiliary at the May meeting.

Auxiliary sponsored event, in addition to the regular meeting, was the AMEF benefit barbecue. This was held on July 20th at the Schaible summer home near Fairbanks. We like to think it was a huge success, as it certainly was financially, since \$110 was raised for AMEF. This is the first of two planned benefit dinners for AMEF.

## **CHIT CHAT—**

#### **Anchorage**

Miss Helen DiAndreth became the bride of Dr. Merritt P. Starr on March 24th of this year. Dr. Starr has practiced medicine in Anchorage for the past nine years. Helen arrived in Anchorage in 1954 from Washington, D. C.

Dr. and Mrs. Glenn Crawford are the proud parents of their first child, a son, Todd Raymond, born on June 7th.

Mrs. Perry Mead recently attended, as a delegate of the Turnagain Garden Club, the first Alaska State Federation of Garden Clubs Convention held in Fairbanks on August 11th and 12th. Business included selection of a state tree and determining the choice of an official state seal for gardeners of the 49th state.

The three older children of Dr. and Mrs. Rodman Wilson have been spending an eventful summer with Dr. Wilson's parents in Wells, Tex.

Laura Fish, born June 24th, joined a sister, Meg, in the family of Dr. and Mrs. Winthrop Fish.

The engagement of Miss Margaret B. English to Dr. G. Wichman was recently announced in Anchorage. The wedding will take place in New York City on Saturday, the 17th of September.

Dr. and Mrs. William Mills and children are pleased to have Elaine's parents, Mr. and Mrs. Bernard Nagelvoort of Owosso, Michigan, visit them this summer.

Mrs. Jack Sedwick is busy serving another term as President of the Providence Hospital Auxiliary in Anchorage.

Dr. and Mrs. Wm. Maddock have evened things out in their family with arrival of James Gordon in July, to make it two boys and two girls.

Mary Jane Walkowski, daughter of Dr. and Mrs. A. S. Walkowski, was married June 11th to Gary Emard of Ketchikan. Mary Jane had been teaching at Annie Wright Seminary in Tacoma. Mr. Emard is now assistant agent for Alaska Steamship Co. in Anchorage.

Susan Phillips, daughter of Dr. and Mrs. Francis Phillips, spent the summer visiting aunts and uncles on Nebraska farms. Her activities included a great deal of swimming and horseback riding plus a trip to the Black Hills.

#### **Chugiak**

Marsha Simpson, new daughter of Dr. and Mrs. Marshall Simpson, surprised her parents by her sudden arrival at home on July 9th.

#### **Fairbanks**

Dr. and Mrs. James A. Lindquist are the parents of a baby boy, their seventh child, born June 28th.

Dr. and Mrs. Hugh B. Fate, former members of the Medical Society and Auxiliary, are visiting in Fairbanks this summer and taking part in Society and Auxiliary activities.

A boy arrived on July 24th to join the family of Dr. and Mrs. William Bugh.

Mrs. John I. Weston was selected by the Fairbanks Soroptimist Club as their "Woman of the Year." The award was made recently at a banquet in Fairbanks.

#### **Juneau**

Janice Smalley and six-year-old son, Michael, accompanied Dr. Robert Smalley to Juneau where he recently became affiliated with the Juneau Clinic. They are presently making their home at the Mendenhall Apts.

### Ketchikan

Dr. and Mrs. James Wilson and daughter, Kathleen (age 4) and Susan (age 1½) arrived July 1st to make their home in Ketchikan. Jim is the son of Dr. and Mrs. Arthur N. Wilson.

Dr. and Mrs. Ralph Carr are parents of a new daughter, Jennifer, born July 5th. In June the Carrs attended Alansa Carr's graduation exercises at Scripps College in California. Alansa was "Miss Alaska of 1959."

### Kodiak

Dr. and Mrs. A. Holmes Johnson plan to fly to Hawaii the latter part of September to attend the Pan Surgical convention to be held there. Dr. Johnson is the official delegate from Alaska. They are considering spending two or three months on "The Islands."

### Seward

The Deishers spend all their off time—rain or shine—building a cabin on their homestead at Tonsina Point. With volunteer labor of such

visitors as Dr. Drake and Mr. Birger Martinsen and others, they've made great progress to the point where the roof will be on and the walls up by the time this goes to press.

The Gentles family returned from their vacation, spent seeing Alaska first. They fished, took pictures, and just lazed along the highways with their three children. Otherwise, Ernie says, "We're just building."

Mary Switzer visited Seward and discussed Rehabilitation with a group of about 50 people at a luncheon on July 23rd. Among those present were two doctors and three doctors' wives. Miss Switzer had much of interest to say, giving us food for constructive thinking in terms of our town's greatest need—industry or a substitute for same.

### Sitka

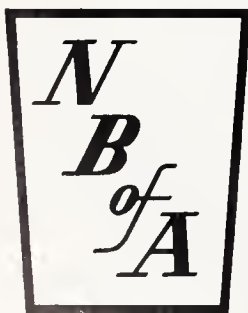
Sue Charteris had a very nice two month vacation early this year, visiting her sister and brother-in-law and sailing on their ketch "Sea Otter" throughout the Carribean.

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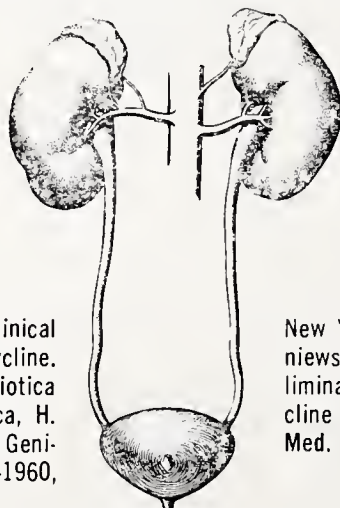
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1. Vineyard, J. P.; Hogan, J., and Sanford, J. P.: Clinical and Laboratory Evaluation of Demethylchlortetracycline. In: *Antibiotics Annual 1959-1960*, New York, Antibiotica Inc. 1960, p. 401-408. 2. Roberts, M. S.; Seneca, H. and Lattimer, J. K.: Demethylchlortetracycline in Genitourinary Infections: In: *Antibiotics Annual 1959-1960*,

New York, Antibiotica Inc. 1960, p. 424-428. 3. Rechinewski, C.; Garcia, A. E., and Loizaga, A. J. A.: Preliminary Report on the Use of Demethylchlortetracycline in Infections of the Urinary Tract. *Antibiotic Med. & Clin. Ther.* 7:235 (April) 1960.

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# Alaska Medicine

Volume II, Number 4

DECEMBER, 1960

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Marilyn Wilkins

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### PUBLISHING CONSULTANT

Herb Rhodes

Editorial Office—423 D Street

Business Office—742 K Street

Anchorage, Alaska

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# MOUNTAIN MEDICINE: Comments on the Rescue of Climbers on Mount McKinley in May 1960

**RODMAN WILSON, M.D.**

ANCHORAGE

On May 17, 1960, four experienced mountaineers from Seattle, Washington, were injured in a fall down an icy slope high on Mount McKinley, Alaska's 20,320 ft. peak. I was a member of an Anchorage climbing party coming down from the summit at the same time. We were nearby quite by chance. In the ensuing week the four injured men, a seriously ill woman climber in our party, and an ill man in a ground rescue party were evacuated from the mountain under difficult, dangerous conditions.\* I learned a lot about the care of the ill and injured in the mountains during this dramatic week.

I discovered, for instance, that any injury or illness, even a minor one, can be potentially of utmost seriousness when weather is cold and air is thin. The woman in our party, for example—a climber of experience and stamina—had suffered from the minor annoyances of acclimatization for about ten days during our ascent from 8,000 ft. elevation to 16,000 ft. She had had listlessness, headache, nausea and vomiting. These would undoubtedly have abated had she returned to a lower altitude for a few days; but when she became trapped for several days in our high camp at 16,400 ft. as the four sound members of our party strove to help the injured men at 17,200 ft., a concatenation of minor disabilities conspired to make her dangerously ill. Vomiting worsened, and headache became agonizing. Dehydration, prostration, delirium and coma followed, all without cyanosis or respiratory distress, yet all due ultimately to the varied effects of hypoxia on every cell in the body. After four days we were finally able to lower our compan-

\*The story of the rescue was volubly reported in the press. Accounts appeared in LIFE, June 6, 1960, and in THE SATURDAY EVENING POST, Nov. 26, 1960.



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ion in an air-dropped akja\* down a 40° ice slope to a 14,300 ft. snowfield where a bush pilot in an unprecedented (but soon to be surpassed) high-altitude air rescue flew her off the mountain. Consciousness returned partially at 14,300 ft. and completely at sea level. Minor neurologic defects suggesting transient brain damage were present for about two weeks.

I learned, too, at first hand about another affliction of mountain climbers, namely, pulmonary edema. A strong, young, unacclimatized climber in the rescue party climbed rapidly from a level of 10,200 ft. to 14,300 ft. He then worked hard setting up the rescue camp at this elevation. On his third day in camp weakness, dizziness, shortness of breath and unproductive cough began. He was unable to stand unassisted and

\*A litter of a type commonly used on ski slopes.

lay weakly, though fully conscious, in his sleeping bag. Respiratory rate was about 30 cycles per minute and pulse rate about 130 beats per minute. This man, too, was finally evacuated by air and quickly recovered. Unfortunately, an x-ray of the chest which might have demonstrated pulmonary edema was not taken. The clinical picture, however, was typical of the findings in this occasionally fatal syndrome, which is due either to acute left ventricular failure or to constriction of pulmonary veins due to hypoxia (1-4).

With respect to the injured party at the 17,200 ft. level, I quickly discovered how little a doctor can do in the way of definitive therapy on a mountain and learned how relatively unimportant, indeed, was the need for treatment in comparison to the elemental need for survival. One man had a fractured leg\* and frostbite of the hands, another a mild concussion and frostbite of a hand, and two men had bruises of the neck, chest, and limbs, and minor cold injury of the fingers. I splinted the leg and dispensed a few anodynes and hypnotics—little more than first aid. I should not, perhaps, underrate the value of a doctor's ability in such a situation to assess extent of injury and determine prognosis. Further, the presence of a physician at the scene appeared to have comforted a lot of people at home and made good news copy. But the overbearing need on the mountain, at least in this accident, was not for narcotics (which I had), nor for plasma (which was air-dropped, but not used), nor even for oxygen (dropped and used), but simply for the means of survival and evacuation. And these means we had or soon acquired. They were (and are) in order of importance in my estimation:

**THE WILL TO SURVIVE:** This is of utmost importance and was abundantly present in the injured party. These were tough, determined men who had survived hardship and accidents in the mountains before. Morale was high and unwavering. No one ever expressed doubt that all would get off the mountain in some way or another, although the chances of rescuing the most seriously injured man seemed remote at times. The will to live breeds strength and ingenuity. Without it life would be short on Mount McKinley.

\*Later more accurately determined to be diastasis of the tibia and fibula of one ankle and severe ligamentous tears of the other ankle.

**SHELTER:** Protection from wind and cold is vital if the injured or lost are to survive in the mountains of Alaska. Night temperatures were consistently below zero (F.) on Mount McKinley in May, 1960. An injured or ill man can easily freeze without a sleeping bag and a tent or a snow house. On the night of the accident one of the members of our party, in a prodigious display of courage and strength at the end of an exhausting climb to the summit of Mount McKinley, returned nearly 1,000 feet up the mountain to pitch a tent over the man with a broken leg. This man fortunately had had his sleeping bag with him at the time of his fall and had been placed in it by his less seriously hurt companions. But the additional protection of a tent on an icy, windy slope with a temperature below  $-15^{\circ}$  (F.) may well have saved his life.

The importance of shelter was even more dramatically illustrated later, when at the 13,000 ft. level a rescue party was caught in a violent two-day windstorm, described by a veteran of Himalayan climbing as the worst storm he had ever seen on a mountain. One by one, small tents were shredded and uprooted by the howling wind, which sliced the hard-packed snow base away for a depth of two feet. Eighteen men finally wore out the storm holding down a heavy five-man army tent. Had this tent split, all might have perished. A snow house or cave is better protection against wind than a tent, but one cannot build an igloo in a one-hundred-plus mile-an-hour gale.\*

**HEAT, WATER, FOOD:** Tree line in most of Alaska is between 2,000 and 3,000 ft. above sea level. For this reason climbers depend upon small gasoline or kerosene burners for heat, cooking, and melting snow for water. Much water vapor is lost from the lungs in the effort of climbing. Dehydration can easily compound fatigue or complicate illness or injury. Fortunately, on this rescue a stove, fuel, and food were air-dropped by military aircraft at the 17,200 ft. camp on the second day, ending the problem my party had of carrying canteens of water up to the injured from our 16,400-foot camp (which we had to maintain because of the ill woman). The

\*A weatherman in this party later determined from wind data that air velocity reached 135 miles per hour at a point (previously aptly named Windy Corner) just above their camp.



condition of all improved decidedly when water in an adequate amount, food, and heat were available. Now, with shelter, fuel, and food survival could be for an indefinite period of time.

**EVACUATION PLAN:** Climbers on Mount McKinley (which is in a National Park) are required to have a back-up party. If you don't come back, someone will begin looking for you. Both climbing groups had back-up parties, but it was particularly fortunate that our party carried with it the additional protection of a radio. McKinley is a tremendous mountain, flanked on all sides by some of the largest, longest glaciers in the world. There are no trails, no shelter houses. One cannot walk out for help in less than one or two weeks and likely could not walk out at all unroped to a companion. It is fearful to imagine what might have been the outcome had not we had a radio to communicate our plight at once. At best, the rescue would have been delayed by at least a week, perhaps with dire outcome for at least two climbers. Communications, thus, were vital in the rescue both at the outset and as the operation progressed. Air and ground rescue plans were initiated promptly and culminated in the dramatic air rescues from the 14,300 ft. snowfield and the incredible helicopter landings at 17,200 feet to pick up the two most seriously injured climbers. The ground party then reached 16,400 feet to escort the remaining two Seattle men down the mountain.

Fortunately, despite the recent inactivation of the 71st Air Rescue Command in Alaska, the personnel, aircraft, and equipment for rescue were still at hand in Alaska in May, 1960. In point of fact, at this very time, rescue forces were in the process of reorganization into the Alaska Rescue Group, a joint venture of the Mountaineering Club of Alaska and the Denali Ski Patrol with the cooperation of the Armed Services and the Civilian Air Patrol. It was essentially these groups, together with other local volunteer fliers and climbers and a large contingent of capable mountaineers from rescue groups in Washington

and Oregon which effectuated the rescue, tragically marred by the loss of the lives of two volunteer civilian fliers who crashed in their light plane at the 17,300 ft. level.

**FIRST AID AND SPECIFIC MEDICAL THERAPY:** When survival itself is a problem, first aid and definitive medical care are of secondary importance. Short of measures to stop serious hemorrhage or to support breathing, medical measures in the mountains can often do no more than relieve pain, allow sleep, and raise morale. Infection can sometimes be treated. Further cold injury can be prevented by proper instruction and supervision, but little can be done in the mountains to treat frostbite already sustained. (How appalled I was to find the man with the concussion sleeping with his ungloved hand out of his bag in below zero (F.) weather!) The aim of almost all treatment under such conditions should be to stabilize injury or disease if possible and to evacuate for proper care at once.

These, then, are the elements necessary for survival and rescue of the ill or injured in the mountains or other vastnesses of Alaska. Their individual importance can be evaluated relatively, but this is specious in a sense for they are inseparable and none is unimportant. All conspire to lead either to defeat or to success in a rescue operation.

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# THE PREVENTION OF TUBERCULOSIS

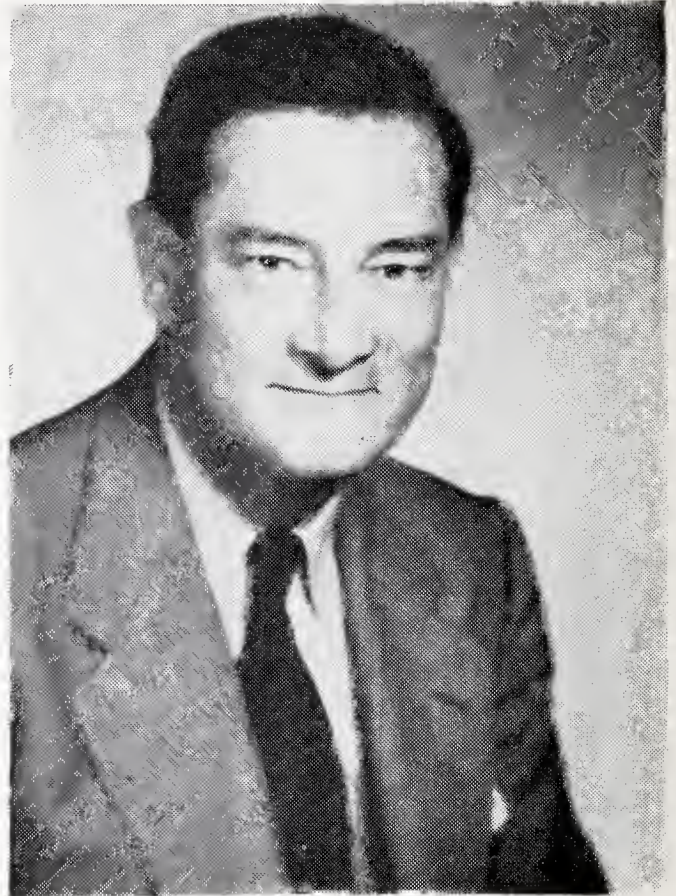
*JULIUS L. WILSON, M.D.\**

In the absence of a highly effective vaccine against tuberculosis or even of a good immunity as a result of recovery from one attack of this disease, its control has had to depend upon isolation and treatment of all active cases. The success of chemotherapy has led naturally to the hope that the same drugs could also be used to prevent tuberculosis. Isoniazid (INH) lends itself well to this purpose, being inexpensive and effective in relatively small doses.

The first effective drug against tuberculosis, streptomycin, did not prevent children from developing meningitis while still under treatment for other forms of tuberculosis. However, Dr. Edith Lincoln called attention to the fact that INH treatment did protect them completely from that fatal complication. The first planned clinical trials of INH prophylaxis in this country were based upon her observation. They were carried out by the Public Health Service in 32 cooperating centers on 2,750 children between January 1955 and the end of 1957. In summary, these trials showed a good protection of infected infants under one year of age against tuberculosis, but a less definite effect upon older children and against other manifestations of progressive tuberculosis.

The prevention of tuberculosis by medical means can be divided into **primary prophylaxis** to prevent the original infection and **secondary prophylaxis** to prevent the development of active disease. A subdivision of the secondary types is the prevention of sequelae such as meningitis complicated active primary tuberculosis. It is important to remember that children with a positive tuberculin reaction do not have active primary tuberculosis unless there is additional evidence of disease and that their prognosis is generally good.

\*Director of Medical Education, American Thoracic Society, New York; formerly Director, Henry Phipps Institute, Philadelphia.



DR. WILSON

## Primary or Infection Prophylaxis

In animal experiments a sufficient dosage of infecting organisms has resulted in tuberculous infection in spite of daily administration of INH in the drinking water or food. It is difficult to suppose that human populations will take their medication as regularly. There have been few studies reported of primary chemoprophylaxis in humans. They require the daily administration of medicine to large numbers of people in their homes for an indefinite period of time. In the Phipps Institute study made with the support of the Indian Health Division of the U. S. Public Health Service in New Mexico in 1955-57 a daily



dosage of 5 to 10 mgm/kg of INH for a year did not protect 2200 Indian children from tuberculous infection as compared to 2300 similar children taking placebo pills. The U. S. Public Health Service is now engaged in a similar controlled study of chemoprophylaxis in 70,000 tuberculosis contacts and institution inmates of whom 35% are negative to tuberculin. It is hoped that this large study will tell us more about the possibilities of primary chemoprophylaxis.

Obviously it is more expensive and less acceptable to give pills daily to all the uninfected for long periods of time than to "treat" the infected. Not more than 70% will continue taking pills for as long as 6 months and possibly 50% for a year. Therefore, unless a way can be found to incorporate a more potent and still harmless anti-tuberculosis agent in our drinking water or into wheat flour, this remains an impractical method as compared to vaccination which sets up a durable immunity against virulent infection by one shot or dose.

### **Secondary or Disease Prophylaxis**

When the individual is already infected, and therefore tuberculous, administration of INH may be considered a form of treatment. Certainly when it is given to infants or children with X-ray evidence of hilar or parenchymal lung tuberculosis it is prophylaxis only insofar as it serves to prevent sequellae. These children should or would be treated anyway. The first cooperative clinical trials, referred to above, showed that a year of INH treatment did indeed reduce the incidence of meningitis and miliary tuberculosis.

A comparison of the INH treated Indian children in New Mexico with those given a placebo showed that neither group developed any progressive or fatal tuberculosis. Children with X-ray evidence of tuberculosis were excluded from this study. Their average age was 9 years. Of 320 children with a positive reaction (over 5 mm. to 5 TU PPD) initially, 48 reverted to negative after a year of INH, while only 9 of 252 reactors reverted on the placebo. Moreover, the average diam-

eter of induration to the same dose of tuberculin decreased from 12.4 to 11.6 mm. on INH but increased from 14.9 to 17.1 on placebo. It is believed that INH may have reduced the number of organisms producing antigen in these treated children. All are being followed to determine whether a year of chemotherapy has had a good or a bad long-term effect. The large Public Health Service study of contacts now in progress will afford more information about secondary prophylaxis.

### **Conclusions**

From the evidence now available the following conclusions are warranted:

1. The ultimate prevention of tuberculosis is still based upon finding and treating thoroughly every case of active tuberculosis. Chemotherapy has the major role in this and the family physician has a central responsibility for both detection and continued treatment.
2. BCG vaccination is still valuable for primary protection of uninfected infants, children and young adults who may be unavoidably exposed from time to time to tuberculosis. The statement about the indications for BCG by the Surgeon General's Committee should be consulted.
3. Chemoprophylaxis against first infection with tuberculosis is limited in value to laboratory emergencies and short term hazards in the home or hospital for immediate protection.
4. Chemoprophylaxis against tuberculosis disease is indicated for all infants under the age of 3 years having a positive tuberculin reaction and for older children with conversion to positive within the previous year. Large reactions (over 10 mm. of induration) and certain dangerous ages (adolescent females) furnish secondary indications for a year of daily INH treatment.
5. The family physician and the pediatrician remain the keys to the future prevention of tuberculosis.

# FROSTBITE:

## Experience with Rapid Rewarming and Ultrasonic Therapy

WILLIAM J. MILLS, Jr., M. D., ROBERT WHALEY, M.D., WINTHROP FISH, M.D.

ANCHORAGE

### PART II\*

In Part I of this paper, "Alaska Medicine," March, 1960, the general methods of treatment were described for those cases directly under our care. The background of knowledge concerning cold injury was briefly reviewed. In this portion of the paper, experience with fifty-one cases of frostbite is described. Of these, forty-one were treated directly by the senior author (WM) as either the attending or consulting physician. The remaining cases were drawn from the file of the Alaska Native Service Hospital or from Providence Hospital, Anchorage.

The majority of those patients not directly treated were followed by one of us as an interested observer. Only three of the total series were not seen by at least one of the authors. Hospital records were very carefully studied and any pertinent information was abstracted from them. The patients themselves were, if possible, interviewed at length concerning the cause of their exposure, the character of their exposure, and resulting symptomatology. All data which was considered of any possible value in the epidemiologic or clinical study of this injury was compiled. Only that information considered to be of general interest is presented here (Table I). Six cases of minimal to severe cold injury to the ears were not included in this series.

#### Group Characteristics

Table II outlines the racial and age distribution of the affected group. The majority of patients are, as one might expect, in the fifteen to forty-five years age range. It is of interest that Caucasian and Native patients are almost comparable in number. (Throughout this paper Native will be understood to refer to those of Aleut, Es-

\*These studies were aided by Contract Nonr-3183(00) (NR 105-249) between the Office of Naval Research, Department of the Navy, and William J. Mills, Jr., M.D.

TABLE II  
Age and Race Distribution

Age	Caucasian		Native	
	Male	Female	Male	Female
0-15	1	0	1	1
15-30	9	0	6	5
30-45	9	1	5	2
45-60	5	1	4	0
61+	1	0	0	0

kimo, or Indian extraction.) The appearance of only two cases of frostbite in Caucasian women is understandable in view of the infrequent exposure of this group.

In Table III the Caucasian and Native groups are listed according to cause of injury. The classification of "insidious" includes those cases of frostbite occurring inadvertently with the subject unaware of the severity of the cold exposure. This is as opposed to that group where exposure was appreciated but could not be avoided. A separate classification is given to include that group exposed as a result of alcoholic intoxication. They

TABLE III  
Cause of Injury by Race

Cause of Exposure	Caucasian	Native	T'tl
1. Insidious	1	3	4
2. Involuntary (Accidental)	18	14	32
a. Aircraft accident	3	2	
b. Land vehicle breakdown	3	0	
c. Hunting or trapping	5	4	
d. Injury at work	1	0	
e. Assault	2	2	
f. Runaway dog team	0	3	
g. Fell through ice in river	0	3	
h. Other	4	0	
3. Alcoholic Stupor	8	7	15
a. With assault		3	
Total	27	24	51



represent an individually large class and apparently a serious health hazard in this state.

Table III demonstrates some expected findings. These include a preponderance of Caucasian injuries in those exposed through truck or automobile breakdown or accident, and of Native injuries from runaway dog teams or from penetration of ice while crossing rivers or lakes covered by overflow. A number of unexpected findings occur, however, including the majority of insidious injuries revealed in Natives. This is somewhat contrary to the common conception that these people are highly experienced and therefore less liable to sustain cold injury of this type.

The assault group included those rendered helpless or unconscious by attack. Most of these were female, and most reported flight after the assault in sub-zero weather, inadequately clothed, with average exposure of from thirty minutes to two hours prior to obtaining aid or rewarming.

In all the above, exposure for most patients was at temperatures well below —20 degrees Fahrenheit or, in a few cases, in the range of just above zero accompanied by high winds.

#### Classification of Injury

In attempting to evaluate the end results of the cold injury, a scheme of classification in roughly progressive degrees of severity was chosen as outlined in Table IV. Generally, the degree of restoration of function of the injured extremity should be considered the most important measure of result. However, although many of these patients have been followed for several years subsequent to their injury, the most recent sustained injury only one month prior to this writing. It is not possible to completely assess functional results at this time, since we were not able to see all of these patients for a proper follow-up. Too, the results are in some cases taken from descriptions rendered by other physicians, and these patients have not as yet been completely evaluated

**TABLE IV**

#### Classification of Degree of Ultimate Injury

- A—No recorded or demonstrated residual
- B—Dysesthesia
  - Intrinsic muscle atrophy
  - Skin loss requiring replacement skin cover
  - Limitation of joint motion greater than 25%
- C—Phalangeal amputation, any level, three or less
- D—Phalangeal amputation, any level, four or more
  - Complete phalangeal loss at metacarpal or metatarsal—phalangeal junction
  - Major amputation of the extremity

in terms of our classification. To be objective, in measuring severity of injury, the classification is based entirely upon anatomical grounds.

The "A" Group includes only those patients without recorded or demonstrable residual. In those cases treated by the authors, no case of significant cold injury was found which did not have some residual, even though minor. Therefore, this group contains patients mainly treated by others. Group "B" contains those patients demonstrating any dysesthesia, or any sensory disturbance including hyperalgesia, hypesthesia, paresthesias, or causalgia. Also grouped in this "B" category are those cases demonstrating intrinsic muscle atrophy, skin loss requiring replacement, or limitation of joint motion greater than 25% of the normal range.

**TABLE V**  
Severity of Injury by Race

	A	B	C	D
Caucasian	2	14	6	5
Native	2	12	6	4

Group "C" includes those patients who usually demonstrated all of the above but who sustained anatomical loss not exceeding three phalanges.

Group "D," on the other hand, consists of those who had tissue loss greater than Group "C," and in general represents those whose amputations are significantly handicapping. In the majority of cases, the Group "D" result amounted to the loss of a foot or lower leg, often bilateral (or separation at the metatarsal-phalangeal junction). Throughout the paper these specific groups of injury are used in evaluating the results of diverse methods of thawing and treatment. They represent our best measure of the treatment method and the subsequent end result of the injury.

#### Results

In Table V the net results, in accordance with the above classification, are tabulated for Caucasians and Natives. There is no significant difference between these two groups. It is seen that there are only four patients in Group "A." These, as noted above, were not in the authors' treatment series. Such patients so described by others, who were re-examined by us, were invariably found to demonstrate some residual limitation of motion or neurovascular loss. These were classified then in

Group "B." It is our conclusion that if actual tissue freezing occurs, even though the injury is relatively superficial, some demonstrable objective or subjective residual will persist indefinitely.

**TABLE VI**  
**Degree of Injury vs. Intoxication**

	A	B	C	D	Total
Intoxicated	1	8	4	3	16
Not Intoxicated	3	18	8	6	35

Because of the many loose statements and multiple theories regarding the effect of alcohol on frostbite, before and after exposure, Table VI has been included. There appears no significant difference in the distribution of intoxicated or non-intoxicated patients when classified by degree of injury. It is obvious from individual case histories that many of those who were intoxicated and sustained frostbite presumably would not have received this injury had they been aware of their environment and able to care for themselves.

In Table VII the subjects are classified according to anatomical areas of injury, race and final result. It is seen that the feet are involved more often than other sites, and are particularly likely to be involved bilaterally and often symmetrically. It is apparent from individual cases that involvement of the feet often occurs first,

**TABLE VII**  
**Anatomical Site of Injury**

Area of Injury	Cauc	Nat	Ttl	A	B	C	D
H, F, Bilat.	3	5	8	0	3	5	0
H, Bilat.	3	1	6	0	3	2	1
F, Bilat.	16	11	27	0	18	4	6
H, Unilat.	1	3	4	2	2	0	0
F, Unilat.	1	2	3	2	0	0	1
OTHER	1	2	3	0	1	1	1

followed by injury to the hands. This is the usual occurrence in those wearing the standard type of winter clothing, who sustain severe exposure with body cooling.

The preponderance of Caucasian subjects with involvement of both hands only is interesting. This appeared as a result either of accidental loss of the hand covering due to wind, of loss in the

course of the accident preceding the cold trauma, or of a lack of proper hand cover prior to cold injury. It is of further interest that the majority of major amputations of those subjects falling in Group "D" sustained foot injuries. Cold injury to the hand rarely produced more than isolated phalangeal loss. (Caucasian-Native racial variation, particularly regarding hand injuries, will be discussed in Part III.)

#### Variation of Result by Method of Treatment

The treatment of frostbite as advanced by the authors in Part I of this paper consisted of the rapid restitution of body temperature by warm oral liquid intake and a warm total bath when this was possible, which was seldom. This was followed immediately or concurrently by the rapid rewarming of the affected part by submersion in a water bath, 110 to 118 degrees Fahrenheit, preferably in a whirlpool. Treatment thereafter utilized whirlpool baths containing pHiso-hex® solution once or twice daily at body temperature. In some cases the use of ultrasound was combined with the whirlpool bath.

Initially antibiotics were utilized for the first two weeks of therapy. The choice of antibiotic varied. Our particular choice had been that of a combination of streptomycin and penicillin. In recent cases no antibiotics have been used in the treatment of these patients, unless the presence of infection was identified.

All attendants, particularly in the early stages, were required to wear clean gowns and face masks. In all our cases, the treatment of the injury was by the open method, without the use of occlusive dressings or ointments. It was found that some time after the fourteenth through the twenty-fourth day, with much variation in this time, sufficient drying of the tissues occurred so

**TABLE VIII**  
**Results by Type Hospital Treatment**  
**Authors' Method vs. All Other**

	A	B	C	D	Total
Full F.B.R. Program (R.R., U.S., W.P., P.T.)	0	6	1	0	7
U.S., W.P. & P.T.	1	4	2	1*	8
W.P. & P.T.	1	4	1	0	6
Total Above	2	14	4	1	21
Other Methods	2	12	8	8	30

\* See Text



that clean sheets or drapes might be substituted for the sterile cover.

The investigators had very little control of early treatment in most of the subjects available for study. Patients are categorized by the type of treatment received in Table VIII.

Seven patients received the full treatment as outlined. Six of these could later be classified in Group "B" and one in Group "C." The second group noted above consisted of eight patients who were allowed to warm by being placed in a warm room, but who were seen soon after, and received whirlpool, ultrasound and physical therapy. This resulted in one Group "A", four Group "B", two Group "C", and one Group "D".

Six patients received neither rapid rewarming nor ultrasound, but did receive the essentials of the program which consisted of open treatment with daily whirlpool and physical therapy, and this resulted in one Group "A", four Group "B", and one Group "C". The totals of these three groups are tabulated and compare in number with the total patients treated by other methods (thirty in number) wherein there was much greater anatomical loss. Of these, a greater percentage fell in Group "C" and "D" and this is a statistically significant difference.

The initial treatment of this series of patients varied widely depending upon where and by whom they were first seen. Of the total of fifty-one subjects, only seven were treated by "rapid rewarming." In many cases, of course, the extremity had thawed and risen to near body temperature by the time the patient reached trained medical aid. This occurred either during the period of rescue, transportation, or while awaiting examination or treatment in a warm room. One case\* thawed his own feet by exposing them to dry heat from a diesel generator exhaust. This case resulted in bilateral amputation of the tarsal-metatarsal junction. The tissue temperature is apparently readily raised to a lethal level when the injured tissue is not being perfused with blood.

Six subjects were thawed by immersing the foot in snow or ice water to achieve slow thawing (Table IX) in accordance with principles widely advocated in the past and by some authorities today. It is important to note that though this is a small series, half of these patients sustained major amputation, that is, fell in Group "D", and two-thirds, or four, of them sustained some anatomical loss. By comparison, of the patients treated by

"rapid rewarming," or of those allowed to thaw at room temperature, less than 10% sustained major amputation, and only approximately one-third demonstrated any tissue loss. Despite the small number of cases, this is in accordance with

TABLE IX Result by Method of Initial Treatment				
	A	B	C	D
Rapid rewarming (water bath 110°-120° F)	0	6	1	0
"Thawing" with ice, snow or ice water	1	1	1	3
Other means, predominantly room temperature	3	19	10	5
Excessive dry heat	0	0	0	1

the general findings in animal experimentation. Although the proportion of those sustaining no anatomical loss in the group with "rapid rewarming" is considerably greater than that among those thawed at room temperature, the differences are not statistically significant in this small series.

Patients not treated directly by the authors received a variety of treatment. This included whirlpool and physical therapy in some cases, while others were treated with occlusive dressings, and a few with either anti-coagulants, vasodilators, or sympathetic block. None of the last were used on a sufficient number of patients to warrant statistical consideration.

Two major categories of treatment consisted of the "Open" as opposed to the "Closed" method. The "Open" method is defined as treatment using absolutely no cover, or dressing of any kind. The "Closed" method is descriptive of the utilization

TABLE X Result by Whether Closed or Open Treatment Was Used—All Cases				
	A	B	C	D
Open method (no cover)	2	17	4	2
Closed method (occlusive dressing)	2	9	8	7

of occlusive dressings, with or without ointments or salves, moist dressings, or incorporation of the part in plaster of Paris. Twenty-five patients were treated with the "Open" method, and of these, six sustained anatomical loss (Table X). In this group were two major amputations. On the other hand, twenty-six patients were treated by

"Closed" methods, and of these fifteen had sustained anatomical loss with seven major amputations. Cause for this difference, which appears significant, is discussed later, but a portion of the

TABLE XI Days Hospitalized by Method Treatment		
Days Hospitalized	Open	Closed
0- 10	3	5
11- 30	4	0
31- 60	8	6
61-120	7	5
121 or more	3	10

difference appears to be in the dissimilar incidence of infections utilizing the two methods.

Deep cellulitis appeared more frequent in the "Closed" method of treatment. This difference is

Table XII Result by Presence or Absence of Infection, Any Severity				
	A	B	C	D
Without infection	3	18	1	2
With infection	1	8	11	7

reflected in the somewhat longer hospitalization of the severely injured patient (Table XI).

Important to the final result, as evidenced by this series of patients, was the presence or absence of infection (Table XII). For this separation, infection was considered to consist of any demonstrable evidence of purulent material, regardless of amount, and was, in most cases, demonstrated by bacteriological culture.

TABLE XIII Result of Use of Debridement				
	A	B	C	D
Without debridement	3	20	0	3
With debridement	1	6	12	6

In Table XIII the subjects are tabulated without regard to other features of their treatment, initial or late, to demonstrate the relationship of debridement to result. The distribution is seen to correspond closely to the previous table, Table XII. Debridement was considered to mean intervention surgically, by isolated or periodic removal of superficial tissues with any instrument, but not

amputation. Rupture of the blebs mechanically was considered debridement.

In order to determine the features responsible for this apparent relationship, the subjects were again re-classified (Table XIV). This classification was arranged to distinguish between those in

Table XIV Debridement and Infection vs. Result				
	A	B	C	D
Not debrided and not infected	3	16	0	2
Not debrided and infected	0	4	0	1
Debrided and not infected	0	2	2	0
Debrided and infected prior to debridement	1	3	2	1
Debrided, without prior infection and infected subsequent to debridement	0	1	8	5

which debridement was performed because of severe infection and those in which infection was not prominent at the time of debridement but followed the procedure. We feel that this tabulation is important.

It will be seen that good results generally were obtained in those patients who (1) were neither infected nor debrided, (2) were infected but not debrided, (3) were debrided but not infected. On the other hand, poor results were obtained in those patients who were infected and debrided, or in a fairly large group of patients who were debrided and developed infection following debridement. It should be noted here that of twenty-six patients of all types not treated by debridement, only three sustained significant tissue loss. Of seventeen individuals not infected at the time of debridement, fourteen, or all but three, suffered significant tissue loss and five sustained major amputation.

We consider it overwhelmingly demonstrated here that of all the factors in the treatment of frostbite which may influence the result, premature surgical intervention by any means, in any amount, is by far the greatest contributor to a poor result of any variable analyzed.

An attempt was made to evaluate the method utilized by the authors in regard to the number of infections sustained during the course of treatment. For this purpose, the series was divided into three categories, to include those treated by our methods, those treated by other methods but utilizing whirlpool bath, and those utilizing any treatment excluding whirlpool.



Initially the patients were classified as demonstrating the absence or presence of infection. When so presented, this series of subjects demonstrated almost 50% infection regardless of treatment. However, when re-classified into superficial or deep, a marked difference appeared. This classification was not an arbitrary one, since those classified as superficial consisted of small, infected pockets, or pustule formation in the eschar or

final estimate as measured by tissue loss. Superficial injury was defined to be injury limited to skin, corresponding to "first" and "second" degree injury of many writers. Deep injury involves tissues below the skin including muscle, tendons, nerves, blood vessels and bone. This is comparable to "third" and "fourth" degree injury. It is apparent from a glance at the figures that there is little correlation between the initial estimate of injury and the final result.

**TABLE XV**  
**Infection by Method of Treatment**

	No Clinical Infection	Superficial Infection	Deep Infection incl. Osteomyelitis
F.B.R. Program	11	10	0
Other methods with whirlpool	3	5	0
Other methods without whirlpool	10	3	9

tissues adjoining it. Deep infections, however, invariably consisted of extensive cellulitis, with or without osteomyelitis. No patients were seen who fell between these extremes.

Results of this distribution are shown in Table XV. It will be seen that although both our recommended program and other methods which included whirlpool had a significant number of infections, these were entirely superficial. Other methods, however, without the use of whirlpool therapy, developed infection that quite often progressed to become deep, and usually resulted in serious tissue loss. Our clinical impression has

Most of the original estimates of the degree of injury were made by one of us (WM) who had considerable experience with frostbite. It is apparent that the judgment of the severity of injury soon after its occurrence is extremely difficult if not impossible. The further classification of frostbite, particularly in the initial stages, into "degrees" such as has been attempted by many authors, must necessarily be tentative, and unreliable. Further, it has no clinical usefulness apparent to us. We have accumulated no data that would indicate a variety of treatment methods dependent upon the diagnosis of depth of frostbite.

In Table XVII, the salient features of those patients falling in Group "D" are summarized. It is interesting that five of the patients had debridement followed by infection, and of this group one patient sustained bilateral major amputation prior to the fourteenth day. His course subsequently was followed by soft tissue infection at the amputation site, and osteomyelitis of the distal portion of the amputation stump. He required revision of both amputation sites due to persistent infection.

**TABLE XVI**  
**Original Estimate of Injury vs. Result**

	Result	
	Superficial	Deep
Original Estimate		
Superficial	21	17
Deep	4	9

been that daily whirlpool therapy with antiseptic cleansing solution is an effective method to prevent the development of a serious infection, and we feel this is confirmed by these results.

Table XVI represents our subjects, classified according to the original estimate of degree of injury, superficial or deep, plotted against the

Two of these patients, involved in an airplane accident, sustained such injury, that amputation was performed in the absence of debridement or infection. In one, the vascular trauma was so great that all pedal pulses in the foot were absent and examination upon initial admission demonstrated a fracture dislocation of the ankle and the navicular, the latter remaining unreduced. As a lifesaving measure, and in order to obtain help for his companion, he had crawled with the above noted injury over eight hours, at least three and one-half miles down a mountainside in sub-zero weather in the Arctic. It is logical to assume that he sustained considerable vascular injury during this travel. His injuries included a fracture of the lumbar spine as well. In this particular case, spontaneous separation of the tissues occurred at the tarsal-metatarsal junction.

TABLE I  
SUMMARY OF 51 PATIENTS STUDIED

Pt	Sex	Age	Race	Cause of Exposure	Complicating Factors	Anat. Area	Method of Thawing	Method of Treatment*	Deb	Infection	Group†
								RR US WP PT O C Imp			
1	M	24	E	Insidious	Ment. deficiency	Fr-l	Delayed: Room Temp.	X X X	E	Superficial	B
2	F	16	E	Flight after assault	Inac. Pulmon. Tbc Gen. hypothermia	Fr-l, Legs r-l	"	X X X		None	B
3	M	46	I	Alcohol		Hr-l	"	X		None	B
4	M	21	E	Alcohol	Gen. hypothermia	Fr-l	"	X X X	L	Superficial	C
5	M	31	E	Insidious Ice Fishing	Urinary tract Tbc (act.)	Fl	"	X X X	S	None	A
6	F	8	I	Accident		Fr-l	"	X		None	B
7	M	51	E	Alcohol	Gen. hypothermia	HI	"	X X X	E	Superficial	A
8	F	27	E	Alcohol		Fr-l	"	X	E	Deep	C
9	M	19	A	Fishing		Hr-l, Fr-l	"	X	L	Deep	C
10	F	17	E	Fell through ice crossing river		Fr-l	Thawing: Ice & Snow	X X X	E	Superficial	D
11	M	50	I	Fell through ice crossing river	Pulmonary Tbc active	Fr-l	Delayed: Room Temp.	X X X	S	None	B
12	M	23	A	Insidious	Old laceration med. mn left hand	HI	"	X X X	S	Superficial	B
13	M	42	I	Lost in blizzard, runaway dog team	2nd episode F.B. (15 yrs ago) blind- ness, cong(?) Gen. hypothermia	Hr-l, Fr-l	Rapid Rewarming Water Bath-Tub 118° F	X X X	D	Superficial	C
14	F	18	E	Fled in bare feet Assault	Sever Rh Ht disease with A.I.	Fl, Leg r	Rapid Rewarming Hot packs	X X X	D	None	B
15	F	23	I	Alcohol-Assault	Gen Hypothermia	Buttocks, thighs	Delayed: Room Temp.	X X	E	Superficial	B
16	M	15	E	Fell through ice crossing river	2nd episode F.B. Pumonary Tbc act.	Hr-l, Fr-l	Thawing: Ice & Snow	X X X	S	Superficial	B
17	M	29	E	Unclothed in snow	Schizophrenia, org. brain syndrome	Fr-l	Delayed: Room Temp.	X	D	None	B
18	M	41	E	Aircraft accident	Fx lumbar spine Fx dislocation left ankle, dislocation left navicular	Fl, Leg l	"	X X	D	None	D
19	F	32	E	Flight from assault - Alcohol		Fr-l	"	X X X	S	None	B
20	M	35	E	Runaway dog team	Starvation dehydration	Fr-l	Thawing Snow: H <sub>2</sub> O	X X X	D	Superficial	C
21	F	44	E	Flight from assault - Alcohol	Inact. pulmonary Tbc	Fr-l	Rapid Rewarming Hot packs	X X X	S	None	B
22	M	36	E	Aircraft accident	Fx right tibia Fx right talus	Hr, Fr, Leg r	Delayed: Room Temp.	X	D	None	D
23	M	54	E	Runaway dog team	Starvation Gen. hypothermia	Hr-l, Fr-l	Thawing Ice Packs, Snow	X X X	D	Superficial	D
24	M	26	E	Trapping in		Hr-l, Fr-l, Ears	Delayed: Room Temp.	X	D	Deep	C



25	M	22	C	Vehicle accident	Loss of gloves and shoe packs	Hr-l, Fr-l, Ears	Rapid Rewarming (110-115°) Bath	X	X	X	X	X	D	L	Superficial	B
26	M	30	C	Vehicle breakdown	Gen. hypothermia mentally confused	Hr-l, Face	Rapid Rewarming Hot Baths	X	X	X	X	X	S		Superficial	B
27	M	42	C	Injury on trail	Fx left ankle Bimalleolar	Fr-l	Rapid Rewarming WP (118° F)	X	X	X	X	X	S		None	B
28	M	16	C	Hunting accident	Open Fx left tibia Crawled 3 mi. to aid Gen. hypothermia	Fr-l, Knees, Legs	Delayed: Room Temp.		X				S		None	B
29	M	29	C	Insidious	History of old periph. vascu. dis.	Fr-l	Rapid Rewarming (Soaks - 115° F)	X	X	X	X	X	S		None	B
30	M	8	C	Exposure after assault	Gen. hypothermia	Hr-l, Fr-l	Delayed: Room Temp.	X	X				S	E	Superficial	C
31	M	42	C	Alcohol	Gen. hypothermia	Fr-l, Legs	"						S	E	Deep	D
32	M	36	C	Found in snow	Gen. hypothermia	Hr-l	"		X				S	L	Deep	C
33	M	42	C	Found in snow	Gen. hypothermia	Fr-l	"						S	L	Deep	D
34	M	29	C	Hunting accident	Mentally confused	Fr-l	"	X	X	X	X		S		None	B
35	M	44	C	Bromide intox. alcohol		Fr-l	"	X	X	X	X		S		None	B
36	M	36	C	Alcohol	Hallucinating	Fr-l	"	X	X	X	X		S	E	Superficial	C
37	M	41	C	Aircraft accident	Post injury psychosis	Hr, Fr-l	"	X	X				S	E	None	C
38	M	69	C	Found exposed in snow, head injury	Chronic alcoholism	Hr-l, Knees	Thawed ice packs						S	E	Deep	D
39	M	32	C	Aircraft accident	Sprain left angle	Fr-l	Delayed: Room Temp.	X	X				S	E	Superficial	B
40	M	27	C	Aircraft accident	Fx ulner, right	Fr-l	"	X	X				S	E	None	B
41	M	53	C	Trapping		Fr-l	"						D	E	Superficial	C
42	F	51	C	Exposure, not properly clothed		Fr-l	"						S		None	B
43	M	48	C	Changing truck tire		Hr	"						S		None	A
44	M	23	C	Hunting		Fr	Ice packs						S		None	A
45	M	26	C	Hunting		Fr-l	Delayed: Room Temp.				X		S		Superficial	B
46	M	46	C	Alcohol		Fr-l	"						S	E	Deep	D
47	M		C	Mt. climbing accident		Hr-l	"						S	E	Deep	C
48	M	51	C	Mt. climbing accident	Diastasis (T-F) left Sprain right ankle	Hr-l, Fr-l	"				X		S		None	B
49	M	28	C	Vehicle breakdown		Fr-l	(185° F) Excessive Dry Heat	X	X				D	E	Superficial	D
50	F	30	C	Alcohol		Fr-l	Delayed: Room Temp.	X	X	X			S		None	B
51	M	53	C	Alcohol		Hr-l	"	X					S		None	B

\*RR—Rapid rewarming  
Imp—Initial impression of severity of injury, superficial or deep;  
US—Ultrasound;  
†See Table IV

WP—Whirlpool;  
PT—Physical therapy;  
O—Open method;

C—Closed dressing;  
Deb—Debridement.

**TABLE XVII**  
**Features of Those Cases with Major Amputations**

Case	Area	Age	Race	Assoc. Injury or Condition	Factors Preceding Amputation	Level of Amputation
10	Fr-l	17	E		Severe penetrating deep cold injury. Early demarcation, dry gangrene, left distal foot. Debridement followed by infection and retraction of tissues.	Trans-metatarsal left foot
18	Fl	41	E	Fx lumbar spine Fx-dislocation left ankle Dislocation left navicular	Vascular trauma incident to crawling on hands and feet 3-4 miles, 8 hrs. dragging L leg. Unreduced navicular dislocation.	Middle third left tibia. (Preceded by spontaneous separation tarsal-metatarsal junction)
22	Hr, Fr	36	E	Fx Metacarpal R hand Fx tibia (closed) R Fx talus, R	Cold injury superimposed upon multiple fx's, R lower leg. Vascular deficit.	Mid third right tibia.
23	Fr-l, Hr	54	E	Starvation Dehydration	Deep penetrating cold injury. Thawing with ice and snow water.	Bilateral metatarsal phalangeal junction (level of demarcation)
31	Fr-l	42	C	Alcoholic stupor	Debridement, infection, early amputation prior to 14th day, osteomyelitis	1) Proximal 3rd left tibia 2) Tarsal-metatarsal junction right
33	Fr-l	42	C	Alcoholic stupor	Multiple episodes "frostbite", cold exposure after alcoholic bout. Superficial infection, debridement, osteomyelitis and multiple phalangeal amputations	Complete bilateral phalangeal loss, all toes, L&R
38	Hr-l	69	C	Alcoholism Organic brain syndrome	Thawing, ice packs, early debridement, infection.	Phalangeal amputations bilateral, excluding thumbs.
46	Fr-l	46	C	Alcoholic stupor	Early debridement, early surgical procedures (grafts) infection, osteomyelitis	Bilateral proximal third tibial amputations
49	Fr-l	28	C		Severe penetrating cold injury. Thawed at excessive dry heat 165-185° F. Rapid deep demarcation, tarsal-met. junction.	Bilateral tarsal-metatarsal junction

Amputation was performed at the mid-tibial level on a further patient, with such skeletal injury of tibia and talus, including interarticular injury, to preclude, in the opinion of the surgeon caring for him, a good terminal result. One other patient, whose extremities were thawed with ice and snow water, received such deep penetrating cold injury, and was without treatment for such a length of time, that spontaneous demarcation occurred. His loss was bilateral at the metatarsal-phalangeal junction. Another patient, with thawing by ice packs, had an unfortunate result involving both hands, with associated early debridement and infection.

The patient previously referred to, who thawed his feet in a diesel generator exhaust, underwent rapid demarcation with bilateral loss at the mid-foot. Despite excessive warming, he sustained, with the open method of following treatment and constant whirlpool therapy, no evidence

of deep infection. After multiple skin grafts, he obtained a good functional result and required no further amputation.

#### Ultrasound

We have been interested in the utilization of ultrasound as a penetrating tool and an adjunct therapy in the treatment of frostbite. It has been used in these cases only in conjunction with whirlpool. The results of ultrasound at this time are inconclusive. Only recently have we attempted its controlled unilateral use in cases with bilateral symmetrical injury of hands and feet. An insufficient number of such control cases have been accumulated to draw valid conclusions (Table VIII). In this table eight patients received therapy, utilizing ultrasound, whirlpool and physiotherapy without "rapid rewarming."

Six others were treated very similarly, excluding the use of ultrasound. No marked difference is seen.



# Editorial Page . . .

## CHILD ADOPTION LAWS IN ALASKA

In the 1960 State Legislature House Bill No. 254 was introduced in an effort to revise the State statute concerning child adoption. The proposed revisions raised many controversies, and the bill was not enacted. All agree, however, that the existing statute needs modification, so that a "black market" in babies will not become established in Alaska. This is an abomination which present statutes do not curb. A new section of the Penal Code should forthwith be written by the 1961 Legislature to make such trafficking in human lives a criminal offense.

With respect to other revisions in the adoption law, there is virtually no reliable information concerning ratio of unsuccessful to successful adoptions in the past in Alaska upon which intelligently to base modifications. Some claim that arrangements between natural mother, doctor, adopting couple and lawyer with later perfunctory court ratification are entirely too haphazard and fraught with opportunity for misplacement of the child, favoritism toward particular prospective parents, exorbitant payment of "expenses" by the adopting couple to the mother, and more than "usual" fees to the doctor and lawyer. Others believe, equally earnestly, that rigid control of adoptions by a single agency, such as the State Welfare Department, could lead to equally undesirable practices, such as the overuse of foster homes, which deprives a baby of the irrecoverable chance to be with new parents in the crucial first few formative months and years of life; ridiculous attempts to match children to parents by race and other physical characteristics; to observe the handicapped child for prolonged periods in a foster home; or to exclude older adoptive parents. This could equally lead to favoritism. An enlight-

ened Welfare Department could control such tendencies and add measurably to successful early placement, but it is unlikely that a governmental agency would do this consistently because of the peculiarly obstipated and arrogating way in which any governmental agency invested with decisive power is wont to function.

As physicians, we should value a social service investigation when appropriate, but we insist that the doctor's advice concerning the health and the genetic background of the child and the suitability of the prospective adoptive parents be most carefully considered. We submit that the interest of the child is the concern of natural parents, doctor, prospective parents, lawyer, clergyman and social agencies all, and that the magistrate or judge carefully consider their several opinions before ratifying an adoption.

The Booth Home of the Salvation Army in Alaska and the Inter-Agency Council in Anchorage are currently, among other groups, stimulating action in these important matters. Their efforts are to be lauded.

The pre-eminent need at the present is for exhaustive study of past experience with adoptions in Alaska and in other States and then thorough consultation between legislator, lawyer, judge, physician, clergyman and private and government social agencies. Only then can intelligent revision be written into the law. Haste is best made slowly in these matters so that a new law will be sound, not for a year, but for a generation, and so that Alaska's law may become a model and not merely a feeble facsimile of some other State's ancient statute.

RODMAN WILSON, M.D.  
Asst. Editor

# President's Page

Election day has come and gone and I believe we will all agree that organized medicine is still on the defensive. Of course that would have been true no matter which party had been successful, but the degree of defensiveness may have been somewhat different, who knows? Be that as it may, we must be vigilant and aggressive in all our programs. Your officers cannot do it all alone, no matter how hard they try, but you and I working in our own communities can accomplish a great deal.

I have on my desk a letter from the Tax Research and Legislative Agency, Inc., pertaining to the tax structure of our United States, calling attention to the loopholes in income tax laws. Did you know that of the personal income of residents of the U. S. two-fifths pay the heavy tax load while three-fifths go untaxed? Changes in legislation could easily cut back on the presently high tax brackets. I use this only as an example of the necessity for us to enter into the affairs of our community, state and nation.

All of us realize that the Health Department and the Section of Mental health of our state are in a precarious and very untenable situation brought about by a chain of unfortunate circumstances. Early this spring I discussed with Mr. Paul Winsor, Commissioner of Health and Welfare, the problems of the Health Department, offering him the services of our Association in an advisory capacity and as early as May, I was encouraged to believe we were going to get somewhere. Several months and considerable correspondence later we have just gotten our toe in the door. Elsewhere in this journal you will find a copy of a letter I have just received from Mr. Winsor. Probably before you read this I will have learned more as I plan to visit the Health Department offices and try to work out some details in which we can help.

There will undoubtedly be much legislation coming up in the sessions of our new legislature that will be of importance to us in the medical field. I have forwarded to Bill Whitehead information on the new "Federal State Programs for Health Care of the Aged" as that subject will no doubt come up in the near future. Many of our communities have elected new representatives to our legislative halls. It is not too early to be



giving them our ideas and securing help for the health programs of our state and it certainly is up to us to furnish the ammunition for them.

Now, just a word about our next annual meeting to be held in the Sitka-Mt. Edgecumbe area next May 24th to 27th inclusive. We are well into the formation of a program which we feel will be of interest to all of you. We are stressing practicality in all presentations. If you have any suggestions please send them to me now as we expect to have the whole program firmed up in January. I can assure you that the session will not be a disappointment so make your plans early to be in Sitka May 24th to 27th, inclusive, and longer if you want time for fishing.

May I urge all committee chairmen to keep in contact with their committeemen and carry through on any actions requested of them at our last annual session. I realize that committee work, at the wide distances apart we find ourselves in Alaska, is difficult and time consuming, but we can't get everything done the few short days we are together once a year. We are requesting each chairman to present a written report, for in no other way can we keep a record in our archives of what we are trying to accomplish.

Many problems confront our association as well as all of organized medicine and I repeat we must all take an interest in them. I know that I for one have learned a great deal in the past few months about the machinery that makes the AMA run and the problems that exist. Our representatives in organized medicine are doing a good job, but they can do better if each of us support them wholeheartedly when we agree and let them know when we disagree.

Benjamin E. McBrayer, M.D. President



**HEALTH COMMISSIONER'S LETTER  
TO DR. McBRAYER**

November 7, 1960

Benjamin E. McBrayer, M.D.  
President  
Alaska State Medical Association  
P. O. Box 370  
Mt. Edgecumbe, Alaska.

Dear Dr. McBrayer:

Thank you very much for your recent letter concerning the needs of this Department for professional and advisory services. I had hoped to be able to get together with you and discuss your first suggestions in person, but this has not proved to be possible. It is indeed encouraging that you can name so many physicians who would be helpful to the Department.

Since the last time we corresponded on this topic, there have been some refinements in our thinking, and I would suggest that we add several members of the Alaska Dental Society to the group. While no formal status can be given to the professional advisory committee, it would seem of mutual benefit to us to exchange views at the annual conventions of the medical and dental associations. In addition, Department offices throughout the State would welcome visits from the committee or correspondence on matters of joint concern.

Tentatively, we feel that the medical liaison can be performed through Dr. William Whitehead, Juneau; Dr. Benjamin E. McBrayer, Mt. Edgecumbe; Dr. Robert Wilkins, Anchorage; Dr. Arthur Schiabe, Fairbanks; Dr. Robert Shuler, Sitka; Dr. Ralph Carr, Ketchikan; Dr. Joseph Deisher, Seward; and Dr. Joseph Shelton, Anchorage.

As soon as similar suggestions can be received from the Alaska Dental Association, I shall write to each man named of the action we have jointly taken.

Sincerely yours,  
/s/ Paul L. Winsor  
Commissioner.

**MEDICAL HISTORY OF WAR OFFERED**

Many of the medical lessons learned during World War I had to be relearned under fire during World War II because of paucity of distribution of the World War I medical history.

Lieutenant General Leonard D. Heaton, the Army Surgeon General, in an endeavor to prevent this costly relearning process, in the unhappy event of another war, has directed the prepara-

tion, publication, and distribution of the "History of the Medical Department, United States Army, in World War II." General Heaton is particularly anxious that information of the existence and availability of this History be circulated widely among the profession, both military and civilian.

Of the 48 volumes programmed for the series, 15 have been published and can be purchased at modest cost from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The set of 15 volumes may be purchased for \$66.50 or individual volumes can be obtained at remarkably low prices. Commanding officers of medical units may requisition copies for their Medical Units libraries by submitting DA Form 17 directly to the Historical Unit, U. S. Army Medical Service, Washington 12, D. C., ATTN: Promotion Branch.

Volumes now available are:

"General Surgery," edited by Michael E. DeBakey, M.D.

"Neurosurgery," Volume I (Head Injuries), edited by R. Glen Spurling, M.D., and Barnes Woodhall, M.D.

"Neurosurgery," Volume II (Spinal Cord and Peripheral Nerve Injuries), edited by R. Glen Spurling, M.D., and Barnes Woodhall, M.D.

"Hand Surgery," edited by Sterling Bunnell, M.D.

"Ophthalmology and Otolaryngology," edited by M. Elliott Randolph, M.D., and Norton Canfield, M.D.

"Orthopedic Surgery, European Theater of Operations," edited by Mather Cleveland, M.D.

"Orthopedic Surgery, Mediterranean Theater of Operations," by Oscar P. Hampton, M.D.

"Physiologic Effects of Wounds," edited by Fred W. Rankin, M.D., and Michael E. DeBakey, M.D.

"Vascular Surgery," edited by Daniel C. Elkin, M.D., and Michael E. DeBakey, M.D.

"Cold Injury, Ground Type," by Tom F. Whayne and Michael E. DeBakey, M.D.

"Dental Service," George F. Jeffcott, D.M.D.

"Environmental Hygiene," by James Stevens Simmons, M.D., and others.

"Personal Health Measures and Immunization," by John E. Gordon, M.D., Tom F. Whayne, M.D., and others.

"Communicable Diseases," Volume IV, by John E. Gordon, M.D., Joseph Stokes, M.D., and others.

"Hospitalization and Evacuation, Zone of Interior," by Clarence McKittrick Smith.

# Muktuk Morsels

*A column devoted to medical news in Alaska, compiled by*

**HELEN S. WHALEY, M.D.**

## GENERAL

The Fourth Annual Lederle Post Graduate Symposium will be held in Anchorage on Saturday, February 25th, at the Westward Hotel. This coincides with the Annual Anchorage Fur Rendezvous. The program has been arranged by Dr. Charles St. John. Guest speakers include Dr. George E. Shambaugh, Jr., Professor and Chairman of the Department of Otolaryngology of Northwestern School of Medicine. He will discuss the "Treatment of Otitis Media." Dr. David Figge, Assistant Professor of Obstetrics and Gynecology at the University of Washington School of Medicine is to discuss the "Management of Abortion." "Stress and Its Relationship to Lipoid Metabolism in the Human Body" is to be presented by Dr. Stuart G. Wolf, Professor of Medicine at the University of Oklahoma. All physicians in Alaska are invited to these sessions.

The Third Alaskan Heart Clinic was held in September, again in Anchorage and for the first time in Fairbanks. Approximately 120 children and adults were reviewed in Anchorage by the team of four visiting physicians from the Stanford University Medical School in Palo Alto, California, and the Presbyterian Medical Center in San Francisco. This group included Dr. Herbert Abrams, Radiologist; Dr. Herbert Hultgren, Internist; Dr. Frank Gerbode, Cardiac Surgeon; and Dr. Saul Robinson, Pediatric Cardiologist. The Clinic in Fairbanks was organized by Dr. Donald Tatum with the assistance of Dr. C. T. Marrow and was held at the Ladd Air Force Base Hospital. There were 31 patients seen.

A comprehensive article titled "Alaska, Frontier for Health Services," was published in the Public Health Reports of October, 1960. Most of the data for this article was compiled by Mrs. Rachael Simmet, special assistant to the Director of the Arctic Health Research Center in Anchorage. Her material was obtained from published and unpublished reports and records of staff mem-

bers of State and Federal agencies and organizations. Her final conclusion is that Alaska's present major health problems—those coming from infectious diseases and lack of sanitation—will continue to claim priority for some time.

Much of Alaska's past progress in overcoming major health problems can be attributed to strong Federal support and increasing Territorial-State appropriations.

## LOCAL NEWS

**FAIRBANKS:** Dr. Carl E. Boswell, who was formerly associated with Dr. Henry Storrs and prior to that with Dr. John I. Weston, has established his private office in Dr. Hugh Fate's former quarters in the Co-op Building. His practice is limited almost exclusively to internal medicine. The Fairbanks Clinic has a new general practitioner Dr. George Leih, previously of Phoenix, Arizona. Dr. Leih is a 1955 graduate of the University of Nebraska College of Medicine in Omaha and has two children. Dr. Joseph M. Ribar of the Fairbanks Clinic was recently elected Mayor of Fairbanks. The previous Mayor, Dr. Paul Haggland, was voted "the man of the year" of Fairbanks for 1960. Dr. Donald Tatum of the Tanana Valley Medical-Surgical Group and a Diplomate of the American Board of Internal Medicine, has been accepted as an Associate of the American College of Physicians. Dr. Felix Adams, previously of Vinita, Oklahoma, and a 1939 graduate of the Duke University School of Medicine is now associated with Dr. John I. Weston at the Doctor's Clinic.

St. Joseph's Hospital staff officers for 1961 include: President, Dr. Donald E. Tatum; Vice-President, Dr. Taylor Marrow; Secretary-Treasurer, Dr. Henry Storrs. The Fairbanks Medical Association elected officers at the December meeting. The new President is Dr. James A. Lund-



quist; Dr. Henry Storrs was elected Vice-President; Dr. William Bugh, Secretary; and Dr. Lawrence Dunlap, Treasurer.

Dr. and Mrs. Arthur Schaible have just returned from a two-month vacation through Europe. They spent considerable time in Russia where Dr. Schaible witnessed various surgical procedures. He will give a presentation on the techniques of chest and abdominal surgery in Russia at the next meeting of the Fairbanks Medical Association.

The Pan-Pacific Surgical Meeting in Hawaii and the American College of Surgeons meeting in San Francisco were recently attended by Dr. Henry Storrs.

PALMER: Dr. Vincent Hume is attending the University of California at Los Angeles General Medical Seminar from January 7th through the 22nd, which is being held in Mexico City and Guadalajara.

CHUGIAK: Dr. Marshall Simpson was in the South 48 from October 25th to December 4th. He attended the American Heart Association meeting in St. Louis and the American Medical Association meeting in Washington, D. C.

BETHEL: A 7 lb. 10 oz. girl was delivered to Dr. Jean Persons at Providence Hospital in Anchorage on Thanksgiving Day.

Dr. George Wagon arrived in Anchorage during January in his recently purchased Cessna 180. He was enroute to Washington, D. C., to attend a post-graduate course in Public Health Administration.

NOME: Dr. John Barrow, III, with his wife and three children, arrived to assume the duties of Medical Director at the Maynard-McDougall Memorial Hospital. He is a graduate of the Vanderbilt University School of Medicine, where he also interned. The Board of Missions of the Methodist Church, which sponsors the Maynard-McDougall Memorial Hospital, sent Dr. William J. Hillman, Professor of Orthopedics at the Vanderbilt University School of Medicine, to survey some of the medical problems during November, 1960. He was particularly interested in surveying the possibility of obtaining a grant for vocational rehabilitation studies in the Nome area. This hospital, which was originally established in the Gold Rush days by the Catholic Church, and later taken over

by the Board of Missions of the Methodist Church, is the only private hospital in Western Alaska and serves the large geographical area between the Bethel USPHS Hospital to the south and the Kotzebue USPHS Hospital in the north. This is an extremely isolated area because of severe weather problems. In addition to providing medical care for the white population of this area, this hospital provides care to the Native population under a contract care basis with the U. S. Public Health Service.

KENAI: Dr. Marion Goble, who has practiced in the Kenai-Soldotna area for the past two years, left the area permanently in December, 1960, to return to New York. However, Dr. Paul Isaak is now providing medical service in the Soldotna area. It is hoped that in the near future funds will be available for a new clinic building and possibly for a small hospital. At present the nearest hospital facilities are Seward, Homer and Anchorage.

JUNEAU: Dr. Edwin O. Wicks has been appointed Acting Director of Public Health, Department of Health and Welfare, for the State of Alaska.

Numerous improvements have been made at St. Ann's Hospital under the capable administration of Sister Luca. Ford Foundation funds have been used to obtain the latest in anesthetic equipment, a physiotherapy department and a new emergency room. A hospital medical library has been started as a memorial to Drs. Blanton and Clements.

Dr. Jack Gibson is slated to assume the Presidency and Dr. Homer Ray will be Secretary-Treasurer of the combined St. Ann's and Juneau Medical Society.

ANCHORAGE: Officers for 1961 for the Anchorage Medical Society will be Dr. Winthrop Fish, President; Dr. Rodman Wilson, President-Elect; and Dr. Glen Crawford, Secretary-Treasurer. The new Providence Hospital staff officers include Dr. William Maddock, President; Dr. Robert Whaley, Vice-President; and Dr. Rudy LeLeong, Secretary-Treasurer.

Numerous meetings have been attended during the past three months by Anchorage physicians. Drs. Milo H. Fritz, Frederick J. Hillman and Lester A. Margetts, Jr., became Fellows of the American College of Surgeons at the San

San Francisco meeting in October. Dr. Robert Wilkins was the first physician from Alaska to be elected to the Board of Directors of the American Heart Association. He attended the New York meeting in December. One of the five Alaskan delegates to the White House Conference on Aging, which convened in Washington, D. C., January 9th to 12th, was Dr. Francis Phillips. The Fourth Annual Cancer Conference was attended by Dr. Royce Morgan as the Alaska delegate of the Alaska Division of the American Cancer Society. This was held at the University of Minnesota, Minneapolis, in September. Dr. Duane Drake, Radiologist, attended a continuation course at the University of Minnesota on Radiation Therapy in October and another course at the Tumor Institute, Swedish Hospital, Seattle, in December. In the immediate future he is setting up the first X-ray therapy unit in Alaska. The first medical radio-isotope unit in Alaska was established at the Doctor's Clinic this Fall for the evaluation and treatment of such conditions as hyperthyroidism, malabsorption syndromes, polycythemia vera, etc.

Dr. Joseph Shelton became a registered big game guide this past summer. Dr. William J. Mills was elected to the American Academy of Orthopedic Surgery and the American Academy of Cerebral Palsy recently.

Dr. Robert Lewis, formerly of Glenwood Springs, Colorado, and more recently with the Boise Veterans Administration Hospital, has joined Dr. William Caughran and Dr. Calvin Johnson in general practice at the Spenard Clinic.

**SAND POINT:** The first doctor to be stationed in the Aleutian Island community of Sand Point, 600 miles southwest of Anchorage, is Dr. Carl Sandberg, who set up a medical clinic in November with the assistance of his wife, a nurse, under the auspices of the Alaska Baptist Conference. The work is being started with the financial aid of the Aleutian Cold Storage, New England Fisheries and Wakefield Fisheries. Dr. Sandberg was formerly an officer with the Alaska Public Health Service in Anchorage. He is a graduate of the University of Minnesota Medical School. In the past, patients in this community were sent either to Kodiak or Anchorage for medical treatment.

**CORDOVA:** Dr. J. Ronald Brown entered practice in Cordova in October. He received his medical training at the University of Maryland

and the University of Utah, receiving his M.D. degree at the latter institution in 1947. He practiced in California for a total of seven years and in Hawaii for the past two and a half years. For one and a half years in 1951-1952 he was the District Director of Public Health for the Marshall Islands District in the Trust Territory of the Pacific Islands. Dr. Brown has many hobbies and considers himself a general practitioner with "special interests" in almost every field. Prior to leaving Hawaii, he was collaborating with one of the High Talking Chiefs now living in Hawaii in the writing of a Samoan-English dictionary. He has eight children, the last of whom was born October 15th.

Dr. Joseph Tedesco, formerly of Cordova, has accepted a residency in ophthalmology.

## NEWS OF GOVERNMENT SERVICES

### UNITED STATES PUBLIC HEALTH SERVICE

Dr. Kazumi Kasuga, Area Medical Officer, recently attended the Annual Meeting of the Public Health Association in San Francisco and the Institute for Federal Hospital Administrators held in Washington, D. C.

Prior to this past summer, the Coast Guard vessel "North Wind," which visits many of the remote villages of the Aleutian Chain and the western Alaska Coast had a Coast Guard physician on board. However, these doctors are now assigned from the Public Health Service staff in Alaska. These physicians serve for a three-month tour. Dr. William H. James, formerly of Anchorage, and a graduate of the Ohio State University School of Medicine, Columbus, was the first USPHS physician assigned this duty direct from Alaska.

Dr. R. Wade Ortel was assigned to Kotzebue this past summer. He is a graduate of the University of Maryland Medical School and came from a surgical residency in Pennsylvania.

Dr. Evangelos Trahos, the radiologist at the Anchorage USPHS Hospital, and a confirmed bachelor for many years, was recently married.

During her annual summer leave, Dr. Gloria Park had her fourth child, a girl. She has been Director of the Outpatient Clinic for the past 3½ years.



## UNITED STATES ARMY, ALASKA

The following are physicians currently assigned for duty with the United States Army in Alaska: At Fort Richardson—Colonel Francis L. Carroll, Chief Surgeon (Cornell University Medical College); Colonel Harry D. Offett, Jr., Surgeon (George Washington University Medical School); Lt. Colonel Donald S. Myers, Preventive Medicine Officer (University of Kansas School of Medicine); Major Ernest N. Moss, Chief, Physical Standards Section (Kansas City University of Physicians and Surgeons); Capt. Peter Reich, Psychiatrist (Harvard Medical School); Capt. Thomas Kelly, Chief, Pediatrics (University of Iowa); Capt. Allen A. Fujimoto (College of Medical Evangelists, California); Capt. Stanley Saperstein (Tulane University Medical School); Capt. William C. Riecke (Tulane University Medical School); Capt. Charles G. Stockard, Surgeon (University of Tennessee-PG); Capt. Gary L. Bannister (University of Nebraska-PG); Capt. Donald F. Terry, Surgeon (Washington University, St. Louis); Capt. Raymond L. Yockey (University of Illinois); Capt. Joe Clark Scoggin (University Medical Center, Jacksonville, Miss.); Capt. Ran L. Phillips, Surgeon (Duke University School of Medicine). At Whittier—Capt. Charles P. Floyd, Surgeon (University of Michigan). At Wildwood Station—Capt. Peter B. Webber, Surgeon (University of Vermont College of Medicine). At Fort Greely—Capt. Francis D. Oakes, Surgeon (Baylor University Medical School) and Capt. Meredith S. Hale (University of Maryland School of Medicine). At Ladd Air Force Base Hospital—Capt. James J. Bingham, Surgeon; Capt. Arthur M. McGuire (University of Minnesota Medical School); Capt. Donald R. Bjornson, Surgeon (University of California School of Medicine); Capt. David Miller, Assistant Surgeon (New York Medical College), and Capt. Robert L. Jensen, Surgeon (University of Utah Medical School).

## 5040th USAF HOSPITAL, ELMENDORF AFB

Colonel William F. Patient, AAC Surgeon and Colonel Levi M. Browning, Hospital Commander, attended the annual meeting of Hospital Commanders, held in conjunction with the annual meeting of the National Consultants to the Surgeon General in Colorado Springs, Colorado, from Nov. 7th to 9th, 1960. The general theme of the meeting was "The Art of the Practice of Medicine."

Meetings attended in recent months by physicians from the 5040th USAF Hospital are: Major James R. Upp, Chief of Pediatrics—the annual meeting of the American Academy of Pediatrics in Chicago; Major Randall L. Clark—the annual meeting of the American Academy of Ophthalmology in Chicago; Major Garth B. Dettinger and Capt. Robert M. Dean—the annual convention of the American College of Surgeons in San Francisco; Major Charles F. Krecke, Chief of Radiology—the annual meeting of the Radiological Society of North America in Cincinnati from Dec. 4 to 9, 1960; Major Robert E. Swan—the annual meeting of the American Academy of Dermatology and Syphilology in Chicago from Dec. 4 to 8; Major Frederick W. Wiese, Chief of Orthopedics—the Armed Services Orthopedic Seminary at Walter Reed Army Medical Center, Washington, D. C.

The new Chief of Orthopedic Surgery is Major Frederick W. Wiese. Dr. Wiese attended Johns Hopkins University. His internship was completed at Brooke Army Hospital, Fort Sam Houston, Texas. In addition to Senior Residency at the USAF Hospital, Lackland AFB, Texas, he received training at Duke University Hospital, Durham, North Carolina and Shriners Crippled Children's Hospital, Greenville, South Carolina.

Captain John A. Pennington has joined the staff as Chief of Anesthesiology, after completing his residency in Anesthesia at Strong Memorial Hospital, Rochester, New York. Dr. Pennington is a graduate of the University of Rochester School of Medicine, Rochester, New York.

Capt. William B. Barnes is the new Chief of Neuro-Psychiatry. He was formerly Assistant Chief of the Neuro-Psychiatric Branch at the USAF Hospital, Sheppard AFB, Texas. He is a graduate of the University of Texas Medical Branch, Galveston, Texas, and completed his residency in psychiatry at the University of Texas Medical Branch, Galveston.

Captain Albert J. Kahane has joined the staff of the 5040th USAF Hospital after completing his residency in Obstetrics and Gynecology at Long Island College Hospital, Long Island, New York. He is a graduate of the State University College of Medicine, New York.

Captain Timothy C. Zoba has joined the staff as a member of the Flight Surgeon's Office. He is a graduate of University of Pennsylvania and the New York Medical College, New York. He has also completed the Primary Course in Aviation Medicine at the School of Aviation Medicine, Brooks AFB, Texas.

# Woman's Auxiliary News

A news column compiled by

Mrs. Vernon Cates

## THE PRESIDENT'S MESSAGE

Now that election is over and most of us have had our vacations we should all be ready to go to work for the Auxiliary.

At long last my committee chairmen are all chosen and, even though I haven't heard from all of them, here they are:

Mrs. R. M. Johnson ..... Membership Bulletin  
Box 1096, Kodiak  
Mrs. Paul Haggland .... Paramedical Recruitment  
502 Kellum, Fairbanks  
Mrs. Robert Wilkins ..... Safety  
2806 Knik, Anchorage  
Mrs. C. C. Carter ..... Community Service  
Box 2599, Juneau  
Mrs. Bruce Keers ..... Mental Health  
Box 407, Kodiak  
Mrs. C. Chenoweth ..... Legislation  
708 Mt. McKinley Apts., Anchorage  
Mrs. Arthur Schaible ..... AMEF  
520 Fourth, Fairbanks  
Mrs. J. J. Fitzpatrick ..... Civil Defense  
Box 1712, Anchorage  
Mrs. Phillip Moore ..... Program  
Sitka, Alaska

From time to time any one of these ladies may write to you and ask that you do something for her committee in your own community. If you are asked to do so please don't let her down. Remember this is your Auxiliary and no matter how good the officers and chairmen, they can't carry the load alone. Help them in every way you can.

Mrs. Cates called me the other night and asked that I include a biography of my life. Well, here goes and hope it won't be boring, it hasn't been for me.

I was born in Denver, Colorado, more years ago than really seem possible, 1909, to be exact. I graduated from high school at Wheatridge, Colorado, and then entered nurse's training at

C. U. Medical Center, receiving my R. N. in 1930. I worked a year after graduating at Colorado General. In April, 1931, I married Mac, who was then a medical student. After his graduation in June we went to Indianapolis, Indiana, where he took his internship and I worked at a small hospital. Those months in Indiana during the depression and the condition of the hospital in which I worked is something I have never regretted doing but would never want to relive. Primitive is the only word which could describe it. My working hours were something, too. I was Supervisor of OB and Surgery—24-hour call 7 days a week with one week-end off about every third week, if I was lucky enough to get out of the building before my relief did. For this I received the grand salary of \$54.00 a month, and maintenance.

In 1932 we moved to Arvada, Colorado, to start our practice. Those of you who were around then remember how hard it was to get someone to pay a doctor's bill. We had lots of patients but no money. Our pay when we got any was produce—eggs, apples, tomatoes, etc. I never will forget the day Mac arrived home after a long call in the country with half a ton of pumpkins. Oh! Those were the good old days and, I for one, don't want them back.

Our first son, Bob, was born in 1933. He is now a Chemical Engineer at Wyandotte Chemical Company in Michigan. He is married and the father of our three grandchildren, Deborah Ann, 4½; Stephen Robert, 3, and Natalie Ann, just past 1. (Don't get me started, I'm a doting grandma.)

We moved to Pueblo, Colorado, in 1935 where Mac went to work for C. F. and I. In 1936 we built our own home and had just moved in when son, James, arrived. Jim is now an Aeronautical Engineer at Emerson Electric, St. Louis, Missouri. He is also married.

Sandra Ann arrived in October, 1942, just before her Daddy left for the far north—Alaska—



where he caught a strange fever that was only cured by returning in 1950, with all of us, to live in Mt. Edgecumbe.

Since living here we have bought an island where I spend most of my summer gardening, and later gathering the produce to freeze or can for the winter. I have enjoyed living here, following my hobbies of sewing and gardening, along with boating, going to the numerous activities around us and taking part in them.

I am looking forward to seeing our daughter graduate from high school in the spring and then the Medical Meeting here in Sitka, May 24-27, where I hope I will have the opportunity to see many of you whom I have met at other meetings, and to meet others whom I have not had the pleasure of meeting.

My best wishes for a Happy Holiday Season to all of you.

Helene L. McBrayer.

## REMEMBER

"The Auxiliary is the balance wheel of the Medical Society and the arch of public relations of the AMA," says Thomas Hendricks, assistant to the Executive Vice-President of the AMA.

Even though you may not be an active auxiliary member you, as a doctor's wife, are the "Walking Commercial" for your local Medical Society and Auxiliary.

## THE ROAD TO EFFECTIVE CITIZENSHIP

Excerpts from pamphlet prepared for the 1960 Convention of the Woman's Auxiliary to the AMA by Dr. McKinnie L. Phelps, Denver.

In a representative form of government every citizen has the right to demand certain things from any public official—

1. Personal Integrity — in both letter and spirit.

2. A good working knowledge of the job in question—from the presidency on down.

3. An ability to ascertain and follow true public opinion.

4. A deep sense of responsibility and a determination to work for the best interests of the majority while resisting selfish and narrow pressures.

## A CITIZEN'S RESPONSIBILITIES

Constantly seek for and encourage candidates . . . who can meet these high standards—do all in his power to help such individuals be elected or appointed—keep himself and his friends regularly and thoroughly informed on current issues and considerations—do everything he can to maintain a two-way flow of communications between himself and his friends and representatives in government.

## OUR INVESTMENT AND RETURN

Investment is the expenditure of time, thought and work—return is the future of America.

## SOME POLITICAL FACTS OF LIFE

Less than 180,000 doctors (in a nation of approximately 180 million)—The great majority are not active politically in the slightest degree. Any notion that . . . the medical profession . . . can function effectively as a lobby from point of view of power in numbers is obviously wrong. Some great organizations such as labor . . . tens of millions . . . attempt to create the impression that they function as solid voting blocks. Both premises are obviously wrong. It is evident, however, that medical and similar organizations do have an influence in politics far beyond the impact of their own members . . . because millions know in their hearts that the chief concern of the professional world is the health of all the people and sincere and deep concern with the best interests of the nation.

## STEPS TO EFFECTIVE CITIZENSHIP

1. Take an active, willing and interested part in . . . PTA groups, young people's activities, fund drives, church work, chambers of commerce, etc.

2. Plan contributions of time in same manner we plan budget. Concentrate on making a real contribution.

3. Take an active part in local political activity of the party of your choice. Many friends we make will be grateful for guidance. Remember, as doctors, that our most devoted and grateful friends are satisfied patients. Urge them to help

out in political issues of the day (doctors of America see two million patients a day). Be proud of our part in politics as perhaps our highest form of social endeavor.

### **SPECIAL AUXILIARY SUBSCRIPTION RATE FOR THE AMA NEWS**

The Board of Trustees of the AMA has approved a special price of \$1.50 a year, which is 50% of the regular rate, for the AMA News to be sent to the home address of members of the Women's Auxiliary, as well as all wives and mothers of physicians.

The copy being addressed to the physician cannot be transferred to the wife or mother, as the copy mailed to the physician must be sent to the professional mailing address, as it is the address control for the master list of physicians maintained by the AMA.

Therefore, the subscription must be ordered by the individual auxiliary member and must be mailed to the home address. Orders should be sent to the Circulation and Records Department of the AMA.

### **TO ALL WIVES**

Have you acquainted yourself with the new magazine, **The Doctor's Wife**, which was published for the first time in March of this year? It reports happily that the medical family on a national scale is doing well. The divorce rates in medical marriages are lower than in any other profession. We average 3½ children per family among whom there is almost no delinquency and who are above par in social and educational standards. Obviously, you women are concerned with

your home and family, and the results are warmly rewarding. **BUT** statistics would seem to indicate that there is a person in each of our families who possibly needs more attention—our husband. Unfortunately our husbands die sooner than do men in other fields. And not only do we lose many of them at an early age, we see too little of them at any age.

Columnist Hal Boyle says, "The best way for wives to cut down on their years of widowhood is to start taking care of their husbands **NOW**."

### **TEN MENTAL HEALTH RULES**

1. A tolerant, easy-going attitude toward yourself as well as others.
2. A realistic estimate of your own abilities neither underestimating or overestimating.
3. Self-respect.
4. Ability to gain love and consider the interests of others.
5. Ability to take life's disappointments in stride.
6. Liking and trusting other people and expecting others to feel the same way about you.
7. Feeling part of a group and having a sense of responsibility to your neighbors and fellow men.
8. Acceptance of your responsibilities and doing something about your problems as they arise.
9. Ability to plan ahead and set realistic goals for yourself.
10. Putting your best efforts into what you do and getting satisfaction out of doing it.

National Association for Mental Health.



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## *on the pathogenesis of **pyelonephritis**:*

"An inflammatory reaction here [renal papillae] may produce sudden rapid impairment of renal function. One duct of Bellini probably drains more than 5000 nephrons. It is easy to see why a small abscess or edema in this area may occlude a portion of the papilla or the collecting ducts and may produce a functional impairment far in excess of that encountered in much larger lesions in the cortex."<sup>1</sup>

The "exquisite sensitivity"<sup>2</sup> of the medulla to infection (as compared with the cortex), highlights the importance of obstruction to the urine flow in the pathogenesis of pyelonephritis. "There is good cause to support the belief that many, perhaps most, cases of human pyelonephritis are the result of infection which reaches the kidney from the lower urinary tract."<sup>3</sup>



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References: 1. Schreiner, G. E.: A.M.A. Arch. Int. M. **102**:32, 1958. 2. Freedman, L. R., and Beeson, P. B.: Yale J. Biol. & Med. **30**:406, 1958. 3. Rocha, H., et al.: Yale J. Biol. & Med. **30**:341, 1958.



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<p>OCT 8 1963</p> <p>INTERLIBRARY LOAN</p> <p><u>7</u> DAYS AFTER RECEIPT</p> <p>Cu-Davis</p> <p>RETURNED</p> <p>OCT 22 1963</p> <p>7 DAY</p> <p>DEC 10 1964</p> <p>RETURNED</p> <p>DEC 7 - 1964</p>	<p>7 DAY</p> <p>RETURNED</p> <p>MAY 12 1976</p>	<p>15m-12,'60 (B5248s4) 4315</p>
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